Smart Tarp Controller
with Current & Position Sensing

OPERATION

Safety Lockout

Prevents undesired Transmitter / FOB operation

1. Disable the safety lockout by pressing the OPEN and CLOSE buttons on the fob at the same time for 2-seconds.
2. The controller is active and ready for operation as soon as both buttons have been released.The controller will remain active for approximately 1-minute after the last active button press.
3. Any time the controller is not operated for a period of 1-minute, the safty lockout is reactivated automatically. To disable the safety lockout, repeat step 1 above.

AERO FOB

Automatic Tarp Controller Operation

Prior to using this feature, the controller's automatic pre-set features must be set using the SET BUMP buttons for the tarp fully OPEN and fully CLOSE positions. See section on System Setup (page 7).

- Activate the controller by pressing and holding both OPEN and CLOSE buttons for 2-seconds to turn off the safety lockout.
- After the controller pre-sets are enabled:
  - Open tarp - Press and Release the OPEN button. Tarp will stop when fully open.
  - Close tarp - Press and Release the CLOSE button. Tarp will stop when fully closed.
- Pressing either OPEN or CLOSE while the tarp is moving will stop the tarp.

Manual Switch Operation

1. Press and HOLD the manual switch (on the side of the box) in OPEN (UP) position to manually UNCOVER the trailer.
   - The tarp will retract and uncover as long as the switch is held.
   - Release switch as soon as the tarp is fully retracted.
2. Press and HOLD the manual switch (on the side of the box) in CLOSE (DOWN) position to manually COVER the trailer.
   - The tarp will extend and cover as long as the switch is held.
   - Release switch as soon as the tarp is fully extended.

AERO CONTROLLER

Note: The Automatic Tarp Controller features are disabled when the manual toggle switch (located on the controller) or the optional cab switch is used.

Circuit Protection

- Power, Tarp Motor: 40 or 50 Amp auto reset circuit breaker near the battery.
- Controller: 5 Amp sealed in-line fuse on the power wire to the tarp controller.

Note: If the Battery voltage drops below 9.8 volts, the controller will not operate and the red status LED on the controller will flash slowly.

Service & Technical Assistance - 800-535-9545

Aero Industries
4243 Broadbury Ave
Indianapolis, IN 46241

Aero - Agricultural Div
I-80 & Highway 50 South
Omaha, NE 68137

Aero Industries
8540 State Route 14
Streetsboro, OH 44241

Smart Tarp Controller
with Current & Position Sensing

INSTALLATION

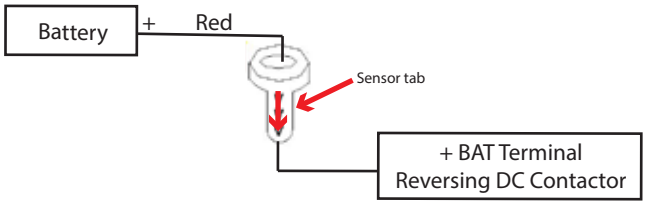
Select the installation location for the controller and the reversing DC contactor. For best range, place the controller in an open area not covered by metal.

Note: If the controller must be mounted outside, do not place in a position that is subject to receiving debris from the tires or the road.

If using an optional cab switch, install the cab switch per install manual supplied with your kit but do not connect to the reversing DC contactor.

1. Connect the 6AWG black wire from the battery and the 18AWG black wire from the controller to the GND terminal on the reversing DC contactor.

2. Install the current sensor on the red 6AWG wire that runs from the battery to the reversing DC contactor with the tab oriented as shown.

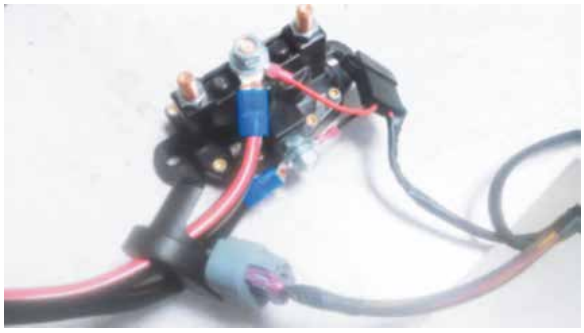


Note: If this sensor is backwards, the controller will not operate in automatic mode. It will open only as long as the fob button is held.

3. Plug the connector from the controller into the current sensor.

4. Connect the 6AWG red wire from the battery and the 18AWG red wire from the controller to the +BAT terminal on the reversing DC contactor. Verify there is a good 5 AMP fuse in the fuse holder.

If using an optional cab switch, connect the white wire from the cab switch to the push-on connector with the red wire on the controller. ***Note: For added protection, it is recommended that a 5A fuse be inserted in this line.***



5. Connect the green wire with the push-on connector to the T2 terminal on the reversing DC contactor.

If using an optional cab switch, connect the green wire from the cab switch to the push-on connector with the white w/green stripe wire on the controller.

6. Connect the blue wire with the push-on connector to the T1 terminal on the reversing DC contactor.

If using an optional cab switch, connect the black wire from the cab switch to the push-on connector with the white w/blue stripe wire on the controller.

7. Connect the 6AWG red wire from the motor to the FWD terminal on the reversing DC contactor.

Smart Tarp Controller
with Current & Position Sensing

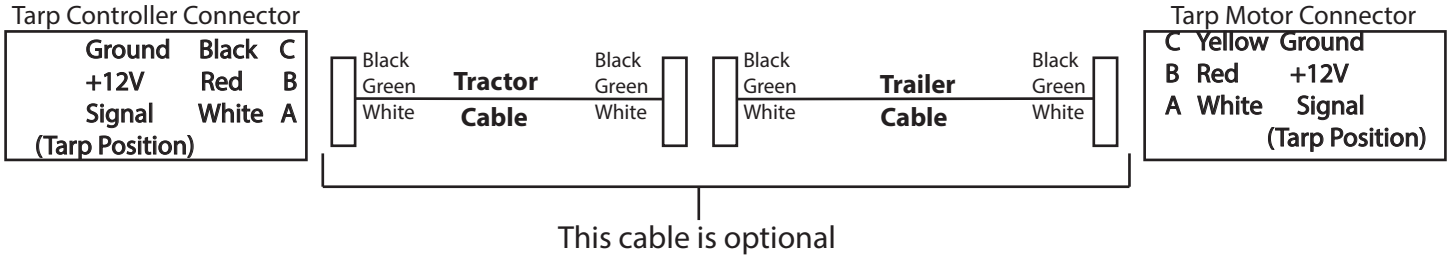
8. Connect the 6AWG black wire from the motor to the REV terminal on the reversing DC contactor.

9. Secure the sensor tab to the battery wire using a tie wrap.

Cable to Tarp Position Sensor

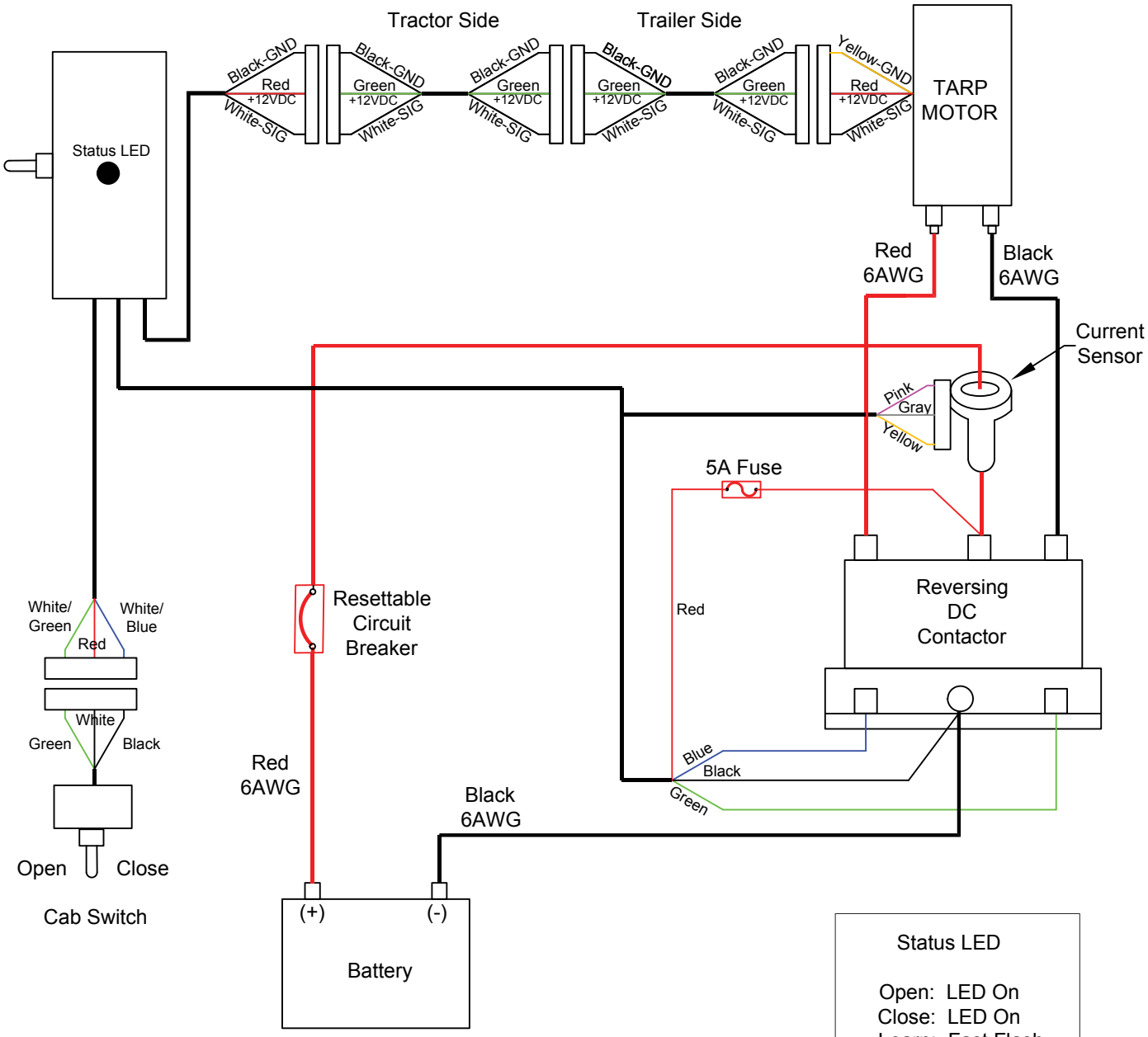
Note: Tarp Position Sensor is located inside the motor.

1. Route Trailer-Side 3-wire cable to the tarp motor.
2. Route Tractor-Side 3-wire cable to the controller.
3. Plug the cables to the controller and tarp motor.
   After cables are routed, plug them together.



Smart Tarp Controller
with Current & Position Sensing

0755-860803



Status LED	
Open:	LED On
Close:	LED On
Learn:	Fast Flash
Low/Volt:	Slow Flash
Confirm:	Double Flash

Aero Smart Tarp Controller
with Current & Position Sensing

SYSTEM SET-UP

SET STOPS - Tarp Position

Note: In some applications, the tarp position set-up is not required.

Clear Tarp End Stops:

To clear previously enrolled Tarp End Stops from memory:

- Disable the safety lockout (see section on Operation).
- Press and HOLD fob SET STOPs Open (I>) and Close (I<) buttons (lower right side) at the same time (about 3-sec).
- When codes are cleared, there will be 2-sets of double flashes on the tarp controller status LED.

Set Tarp End Stop - Fully Open Position

To set the END STOP position when the tarp is fully open (uncovered):

1. Disable the safety lockout, if necessary.
2. Press and release the OPEN button. Tarp will start moving toward the fully open position.
3. When the tarp is in the fully open position, press OPEN button a second time to stop the tarp.
   - Enable SET STOPs mode by pressing and holding BOTH SET STOPS buttons Open (I>) and Close (I<) at the same time for 2-seconds. Status LED will double flash.
5. Press SET STOPS Open (I>) button to set the end stop.
6. Tarp will move ¼-second toward the Close position indicating the Open STOP point is SET.

AERO CONTROLLER

Status LED

Double Flashes when Set Stops enabled

Single Flashes when Open End or Close End Stop is learned

AERO FOB

Open

Close

Press both Set Stop Buttons to enable SET STOPS Mode

Set Stop Open

Set Stop Close

Set Tarp End Stop - Fully Closed Position

To set the STOP position when the tarp is fully closed (covered):

1. Disable the safety lockout, if necessary.
2. Press and release CLOSE button. Tarp will start moving toward the fully closed position.
3. When the tarp is in the fully closed position, press CLOSE button a second time to stop the tarp.
4. Enable SET STOPs mode by pressing and then holding BOTH SET STOPs buttons Open (I>) and Close (I<) at the same time for 2-seconds. Status LED will double flash.
5. Press SET STOPS Close (I<) button to set the end stop.
6. Tarp will move ¼-second toward the Open position indicating the Close STOP point is SET.

Smart Tarp Controller
with Current & Position Sensing

SET BUMP - Current Sensor

Note: Not all tarp applications have a hard stop at fully open or fully closed which is required to set a Bump set-point. In applications without a hard stop, the Bump set-point should be set to protect the tarp and motor if there is an obstruction.

- Disable the safety lockout, if necessary.
- To adjust the SET BUMP feature, press SET BUMP buttons, up △ and down ▽, at the same time for 2-seconds. The current Bump setting will flash on the controller status LED. The factory default setting is "HIGH" and will flash 4-times.
- When the Bump set-point trips, the tarp will stop immediately. The Bump set-point is tripped anytime the tarp hits an obstruction or the tarp is at a fully open or closed position.
- Press SET BUMP button down ▽ to lower the Bump set-point or press up △ to raise it.
  - There are four (4) Bump settings, ranging from High (150A) to Low (60A).
- The new Bump setting will flash on the status LED.

AERO CONTROLLER

Status LED
Bump Settings
4 Flashes = High
3 Flashes = High Mid
2 Flashes = Low Mid
1 Flash = Lowest

AERO FOB

Set Bump Up

Set Bump Down

To Change Bump Set Point, Press Both SET BUMP Buttons at same time for 2-seconds

To Test Bump:

- Press the OPEN or CLOSE button and allow the tarp to move to verify the bump at the fully open or fully closed position.
  - If the tarp stops short of the end position, increase the Bump level.
  - If the tarp motor stays on (status LED on the controller is lit) after the tarp hits the hard stop, turn off the tarp motor immediately, then decrease the Bump current level.

Warning: If the tarp motor does not turn off automatically after reaching the end of travel, damage to the motor may occur.

Enroll Fob

- Remove the 5A fuse for 5-seconds, then reinstall. The red status LED will flash for 5-seconds, indicating the controller is in LEARN mode.
- While the status LED is flashing, press and HOLD both fob buttons, OPEN and CLOSE, at the same time for about 3-seconds, until the red status LED on the controller double flashes, indicating the fob has been successfully enrolled.
- Check the fob enrollment by disabling the safety lock out and then pressing either OPEN or CLOSE buttons to see if the controller turns on.
- Repeat above steps for each fob to be renrolled.

  Note: Only three (3) fobs may be enrolled into the controller's memory at a time. After three (3) fobs are enrolled, a new fob will cause the first (1st) fob enrolled to drop out of memory.

FCC / IC Compliance Statement

FCC Compliance and Advisory Statement. This hardware device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed or used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) reorient or relocate the receiving antenna; 2) increase the separation between the equipment and the receiver 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected; 4) consult the dealer or an experienced radio/TV technician for help. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

Canadian DOC Statement. This digital device does not exceed the Class B limits for radio noise emissions from digital apparatus specified in the interference-causing equipment standard entitled “Digital Apparatus,” ICES-003 of the Department of Communications.

This device complies with RSS-210 of Industry Canada. Operation is subject to the following two conditions: 1) this device may not cause interference, and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

Déclaration FCC. Cet équipement a été testé et déclaré conforme à la section 15 du règlement de la FCC. Son fonctionnement est soumis aux conditions suivantes: 1) l'équipement concerné ne doit pas causer d'interférences dangereuses, et 2) il doit accepter toute interférence reçue, y compris les interférences risquant d'engendrer un fonctionnement indésirable. Cet équipement a été testé et déclaré conforme aux limitations prévues dans le cadre de la catégorie B des appareils numériques défini par la section 15 du règlement de la FCC. Ces limitations sont stipulées aux fins de garantir une protection raisonnable contre les interférences gênantes en installation résidentielle. Cet équipement génère, utilise et diffuse des ondes radio, et s'il n'est pas installé ni utilisé en conformité avec les instructions dont il fait l'objet, peut causer des interférences gênantes avec les communications radio. Cependant, nous ne pouvons vous garantir qu'une interférence ne se produira pas dans une installation particulière. Si cet équipement produit des interférences graves lors de réceptions radio ou télévisées qui peuvent être détectées en allumant et en éteignant l'équipement, vous êtes invités à les supprimer de plusieurs manières: 1) Réorienter ou déplacer l'antenne de réception; 2) Augmenter la distance séparant l'équipement et le récepteur 3) Connecter l'équipement à un circuit différent de celui auquel le récepteur est connecté; 4) Contacter votre revendeur ou un technicien radio/TV qualifié. Toutes modifications ou tous changements effectués sans l'accord exprès de la partie responsable de la conformité aux normes pourraient contraindre l'utilisateur à ne plus utiliser son équipement. Afin d'assurer la conformité avec les règlements FCC, les câbles d'interface blindés fournis avec le produit doivent être utilisés, ainsi que tout autres composants ou accessoires également spécifiés, lors de l'installation du produit.

Déclaration du Ministère des Communications Canadien. Cet appareil numérique est conforme aux limitations concernant l'émission d'interférences radio par des appareils numériques de catégorie B, telles que stipulées dans le cadre de la norme Appareils numériques ICES-003 édictée par le Ministère canadien de l'industrie.

Cet équipement a été déclaré conforme à la norme RSS-210 édictée par le Ministère canadien de l'industrie. Son fonctionnement est soumis aux conditions suivantes: 1) l'équipement concerné ne doit pas causer d'interférences, et 2) il doit accepter toute interférence reçue, y compris les interférences risquant d'engendrer un fonctionnement indésirable.