

## ELECTRIC BRAKE WIRING INSTALLATION INSTRUCTIONS

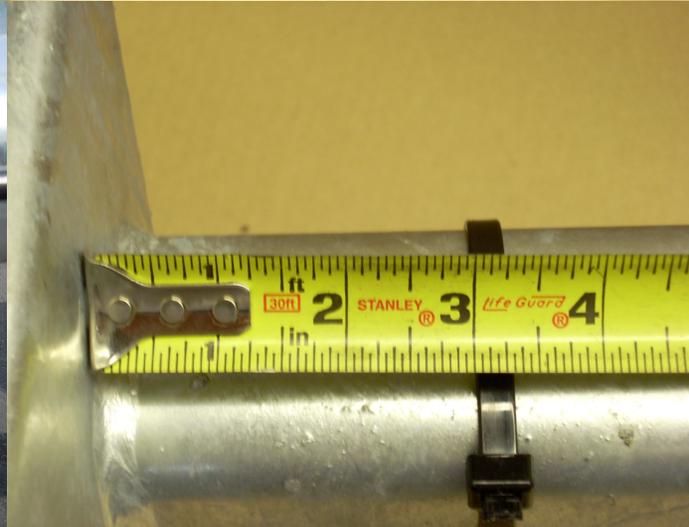
- 1) First identify all component parts by using the matrix and informational pages created for Electric Brakes.
- 2) Locate the boom hole closest to the front braked axle, and feed the electric brake main line part #250-033331 into and down the boom (using a wire snake or similar tool) then into and out the front of the tongue.  
**MAKE SURE THAT THE EXPOSED PIN ON THE BLUE WIRE IS AT THE FRONT OF THE TRAILER.**  
If the 6' extension harness part #250-027245 is required add to the main line prior to going into the tongue.
- 3) On tandem and triple axle trailers, when all axles are not braked follow the instruction's below.
  - a) Torsion axle trailers require the front axle (tandem trailers) and front two axles (triple axle trailers) to be braked.
  - b) Spring axle trailers require the rear axle (tandem trailers) to be braked.
- 4) Attach the electric brake axle harness part #250-033797 to the perma-seal butt connectors on the right and left backing plates using a multi purpose, crimping tool. (**Make sure that the plug on the axle harness is on the right side of the trailer. The right side is determined by looking from the rear of the trailer toward the front**). Once the butt connectors have been securely attached use a heat gun and shrink the perma-seal butt connectors being careful not to burn away any wire insulation. This will create a watertight connection. The plug on the axle harness #250-033797 is always on the right side of the trailer whether it be a torsion or spring axle.
- 5) Repeat step #4 for all braked axles.

**For Torsion axle application's go to next step. For spring axle application's skip to step #12.**

## TORSION AXLE APPLICATION'S

- 6) Now that the axle harness is attached to the backing plates on all braked axles, add 18" of wire loom #250-028691 to each side of all braked axles starting at the backing plate. Affix three small pieces of electrical tape around each wire loom, one at each end and one in the middle. Use a nylon tie strap #250-017565 and attach the wire loom 3" from the axle hanger on both the left and right sides on all braked axles. (Make sure that the wire loom is positioned such that when the torsion arm swings it won't come in contact with any part of the trailer). After the axle harness is installed on each end of all braked axles, attach the remaining harness to the axle using enough nylon tie straps to securely attach the harness to the braked axles. Coil any excess harness in the center of the axle and attach with a nylon tie strap.

**REFER TO PICTURES BELOW. (10" TORSION BRAKE APPLICATION SHOWN)**



7) Single axle

- a) Plug the main line part #250-033331 into the axle harness part #250-033832 and secure the plugs to the braked axle using a nylon tie strap.



8) Tandem axle (ONE AXLE JUMPER HARNESS #250-033333 REQUIRED)

- a) Find the axle jumper harness #250-033333 and plug the long lead into the rear most braked axle, secure the plugs to the braked axle using a nylon tie strap.
- b) Attach the other end of the long lead to the main brake line and the short lead to the front axle harness secure all plugs and extra wire harness using nylon tie strap

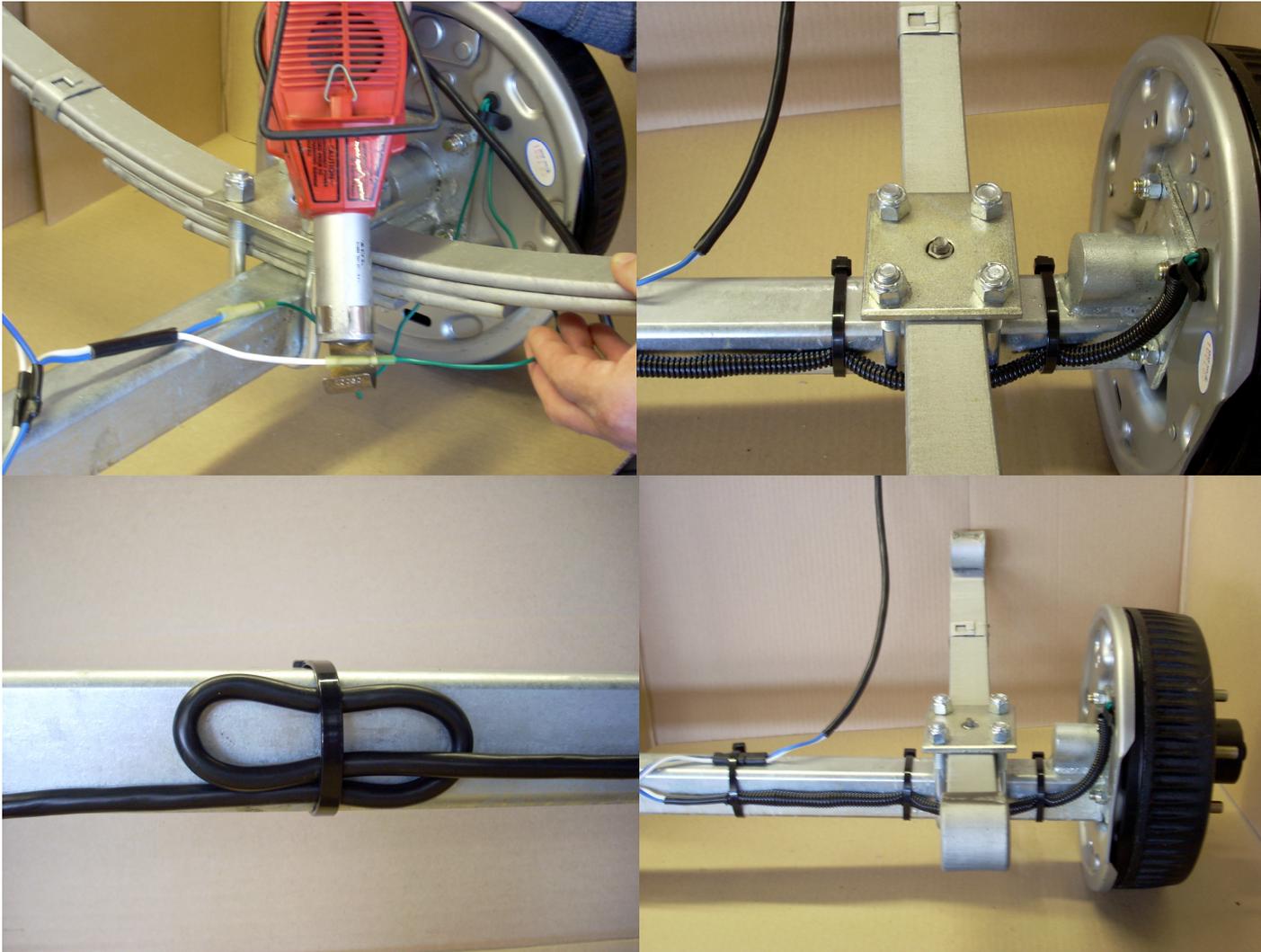
- 9) Triple axle (TWO AXLE JUMPER HARNESS #250-033333 REQUIRED)
  - a) Plug the long lead from the first axle jumper harness into the rear most braked axle; secure the plugs to the braked axle using a nylon tie strap.
  - b) Attach the other end of the long lead from the first axle jumper harness to the long lead from the second axle jumper harness, then attach the short lead from the first axle jumper harness to the middle braked axle harness.
  - c) Attach the other end of the long lead from the second axle jumper harness to the main brake line and the short lead to the front braked axle harness secure all plugs and extra wire harness using nylon tie straps.
- 10) Now that all braked axle/axles are wired and attached to the main line and before the battery box assembly and the battery box mounting kit are mounted to the tongue. Feed the leads from the battery box into the appropriate hole in the tongue, then up the tongue and out at the coupler. Plug all leads into the 4'6" 7-way connector.
- 11) Carefully retrieve the wire harness and the battery box leads pulling the 7-way connector into the tongue until you have 6 to 8" of the black insulated portion of the harness inside the tongue.
- 12) Using a zip tie (#250-017565) securely attach the 7-way connector to the safety chain mounting bolt.

**SEE ILLUSTRATION (BRKEL 1)**

## **SPRING AXLE APPLICATION'S**

- 13) Now that the axle harness is attached to the backing plates on all braked axles, add 18" of wire loom #250-028691 to each side of all braked axles starting at the backing plate. Affix three small pieces of electrical tape around each wire loom, one at each end and one in the middle. Use a nylon tie strap #250-017565 and attach the wire loom to the axle on both sides of the spring and as close as practicable. After the axle harness is installed on each end of all braked axles, attach the remaining harness to the axle using enough nylon tie straps to securely attach the harness to the axle. Coil any excess harness in the center of the axle and attach with a nylon tie strap.

**REFER TO PICTURES BELOW. (10" SPRING BRAKE APPLICATION SHOWN)**



- 14) Single axle
  - a) Plug the main line part #250-033331 into the axle harness part #250-033832 and secure the plugs to the braked axle using a nylon tie strap.
  - b) Make sure that there is enough slack as to allow for the spring axle to move up and down
- 15) Tandem axle (ONE AXLE JUMPER HARNESS #250-033333 REQUIRED)
  - a) Find the axle jumper harness #250-033333 and plug the long lead into the rear most braked axle, secure the plugs to the braked axle using a nylon tie strap.
  - b) Attach the other end of the long lead to the main brake line and the short lead to the front axle harness. Secure all plugs and extra wire harness using nylon tie straps
  - c) Make sure that there is enough slack as to allow for the spring axles to move up and down.
- 16) Now that all braked axle/axles are wired and attached to the main line and before the battery box assembly and the battery box mounting kit are mounted to the tongue. Feed the leads from the battery box into the appropriate hole in the tongue, then up the tongue and out at the coupler. Plug all leads into the 4'6" 7-way connector.
- 17) Carefully retrieve the wire harness and the battery box leads pulling the 7-way connector into the tongue until you have 6 to 8" of the black insulated portion of the harness inside the tongue.
- 18) Using a zip tie (#250-017565) securely attach the 7-way connector to the safety chain mounting bolt

**SEE ILLUSTRATION (BRKEL 1)**