Tractor Wiring Instructions (Aero)

There are two items to wire on the tractor before you can operate your Demco side dump trailer. The control box and the tarp power wire.

To install the control box, find a suitable location in the cab of the tractor and mount the control box. The red and black two wire cable attached to the back of the box is the power wire. Plug the cigarette lighter end into a power connection in the cab. [If you do not have an available outlet for the cigarette lighter end, use the following instructions: Cut the cigarette lighter plug off. Split apart the wires and connect the red wire to a 12v dc power source and the black to ground. Red wire must be positive and Black negative. Reversing these wires can damage the control system. A bag of terminals is included to allow you to tap into most truck fuse panels.]

Route the gray cord and male 9 pole plug out of the cab and to the front bulkhead of the trailer. Plug the cord into the female 9 pole socket on the trailer bulkhead. You will now be able to raise and lower the rear axle and dump the tub.

(NOTE: Air must be supplied to the trailer for the lift axle to operate properly. Hydraulic oil must be supplied to the trailer to dump the tub.)

To use the tarp you will need to supply 12 volt power to the trailer to operate the tarp motor. Due to the large power draw of the tarp motor, the electrical supply must be hooked directly to the battery and the heavy #6 wire included with the kit must be used.

Refer to the Aero wiring diagram for reference. The relay has been already mounted on the trailer and the momentary switch that rolls and unrolls the tarp is in the control box installed previously. All that needs to be done is to run a wire from the battery to the female two pole socket on the road side front corner of the trailer.

Find a suitable location on the tractor to mount the included female two pole socket. A mounting bracket and hardware is also supplied.

Locate the circuit breaker as close to the positive battery post as possible. If the circuit breaker is not mounted to the battery box or truck frame, make sure that the terminals cannot touch anything that would create a short circuit.

Separate enough of the red wire on the #6 red/black cord to reach from the positive battery terminal to the circuit breaker. Cut off the red wire. Strip the red wire and crimp on ring terminals to match the battery cable bolt and the post on the circuit breaker. (Don’t hook the red wire to the battery until everything else is wired.) Crimp a ring terminal on the red wire on the remaining red/black cord and attach it to the circuit breaker.

Crimp a ring terminal on the black wire and attach it to the negative battery post.
Route the red/black cord to the female socket. Cut the cord and crimp ring terminals on the end of the wires. Slip the cover for the back of the socket over the cord and bolt the ring terminals to the socket. Match the positive and negative wires to the corresponding terminals marked on the socket. Slip the cover over the back of the socket. Secure the red/black cord to the truck frame.

Hook the red wire to the battery. A double male stretch cord is included to connect the tractor to the trailer.

The tarp will now operate from the control box. It is best to have the tractor running while operating the tarp.

**Hydraulic Hook-up**

The tractor must have a hydraulic pump and reservoir to supply hydraulic oil to the trailer to dump the tub. The pump needs to supply 25 to 30 gallons per minute of oil at 2500 to 3000 psi. We recommend a minimum of a 15 gallon system reservoir. The tractor should also have a relief valve to protect the tractor’s hydraulic system.

When hooking the tractor to the trailer, the pressure line from the pump must hook up to the female quick coupler on the trailer and the return to the reservoir must hook up to the male quick coupler. The control valve on the trailer will not operate properly if the oil flow is reversed. The quick couplers on the trailer are marked “in” and “out” as a reminder.