

INSTALLATION INSTRUCTIONS

TRAFCON ARROWBOARD for VORTEQ® TRAILER ATTENUATOR.

PARTS LIST

- (1) ARROWBOARD, REMOTE & CABLES
- (1) SMART FLASH MANUAL
- (1) MANUAL* OR POWER TILT MOUNT
 - *MANUAL TILT PART LIST
 - (1) SCREW JACK w/ MOUNTING BOLTS
- (2) SUPPORTS WITH MOUNTING HARDWARE
- (4) HAT BRACKETS AND HARDWARE
- (2) SUPPORT POCKETS- BOLT ON
- (1) REMOTE STORAGE CABINET w/ HARDWARE
(OPTIONAL)

Support Assembly and Installation

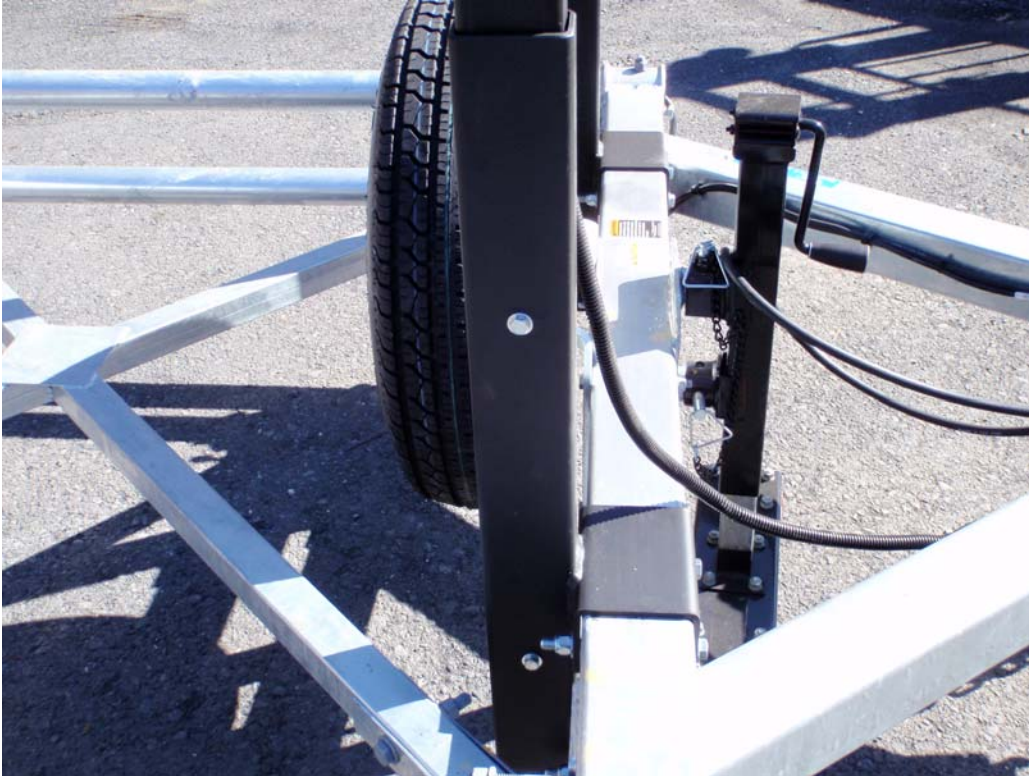
1. The (2) support receiver pockets are to be installed on the front cross rail of the VORTEQ® trailer. *(see Picture 1)* The supports should rest on the top and bottom rail as far to the outside of the trailer as possible. Secure with (8) ½" x 6" bolts, washer & lock nut. Do not tighten clamping bolts at this time.



(Picture 1)

Note: *If solar option is used, install the support receiver pocket with battery tray on the right (passenger) side of the trailer*

2. Insert vertical supports into support receiver pockets and secure with (4) $\frac{3}{8}$ " x $3\frac{1}{2}$ " bolts and lock nuts.
Do not tighten bolts at this time. (see Picture 2)



(Picture 2)

3. Place power tilt or manual tilt mount and arrowboard on top of supports. Align mount to the center of trailer. Using hat bracket halves (4) place over arrowboard mount and align with hat bracket mount plates secure with supplied 5/16" x 3/4 " bolts and nuts to hold in place. (see Picture 3) For manual tilt models install square tube lift jack and secure with (1) 1/2"x 6" bolt (bottom) and (1) 1/2" x 4 1/2" bolt (top). Do not over tighten these bolts- they must move freely.

Tighten all other bolts (support pockets, vertical supports and hat brackets) at this time.



(Picture 3)

Remote Storage Option

If the optional remote storage cabinet is to be used, install it now. The cabinet and the support on the right side of the trailer is pre drilled. Use the supplied self tapping screws to attach 3 of the 4 corners of the storage cabinet to the support upright.
(see Picture 4)



(Picture 4)

Power Connection

For standard applications the power for the arrowboard is drawn from the tow vehicle via the trailer lighting cable. The trailer light connector for a 7 (round) pin connector will use pin #7, blue wire. A 7 (flat) pin connector will use pin #4, black wire.

IMPORTANT: ensure that the tow vehicle has 12-14v, 20A power supply to the above referenced connector pins.

If a direct wire power feed is to be used the (+) and (-) supply wires shall not be less than 12ga.

Route the arrowboard power cable from the arrowboard down the supports and forward to the electrical junction box at the front of the trailer, secure cable with wire ties.

The red (+) and black (-) arrowboard power cables can be terminated and attached to the appropriate terminals in the junction box. See the Vorteq® owner's manual for terminal identification.

Remote Control Connection

For wired remote, the remote cable is already through the remote storage cabinet and has connector installed. Carefully pull remote cable from remote storage cabinet leaving approximately 3"-4" in the cabinet. Route the remote cable up the vertical support to the arrowboard remote connection and connect cable to arrowboard. Secure cable with wire ties allowing slack for arrowboard operation.

SOLAR (OPTION)

One support receiver pocket will have the metal battery tray welded to it. *(see Picture 5)* This receiver pocket should be installed on the right (passenger) side of the trailer cross tubes, with the battery tray facing the rear of the trailer. Place plastic battery box into metal tray. Ensure webbed battery box restraining strap is under plastic battery box and not pinched. Bolt the plastic battery box to metal battery tray using the two front holes in the tray and box using (2) 5/16" x1"1/4" bolts, washers and lock nuts.



(Picture 5)

Install a group 24, 12v deep cycle battery (not included) in the battery box. Place the battery box lid (with solar regulator installed) close to the battery and connect the orange wire from the solar regulator (with fuse) to the battery (+) positive terminal and the tan wire from the solar regulator to the battery (-) negative terminal. (see Picture 6)



(Picture 6)

Install solar panel mount brackets, with mount ears facing toward the center of the arrow panel frame, to the studs in the top channel of the arrow panel using ¼" lock nuts. Route the solar panel power lead down through arrow panel lift arm. Install solar panel to the solar panel mount brackets using (4) ¼"x1" bolts washers and lock nuts. (see Picture 7)



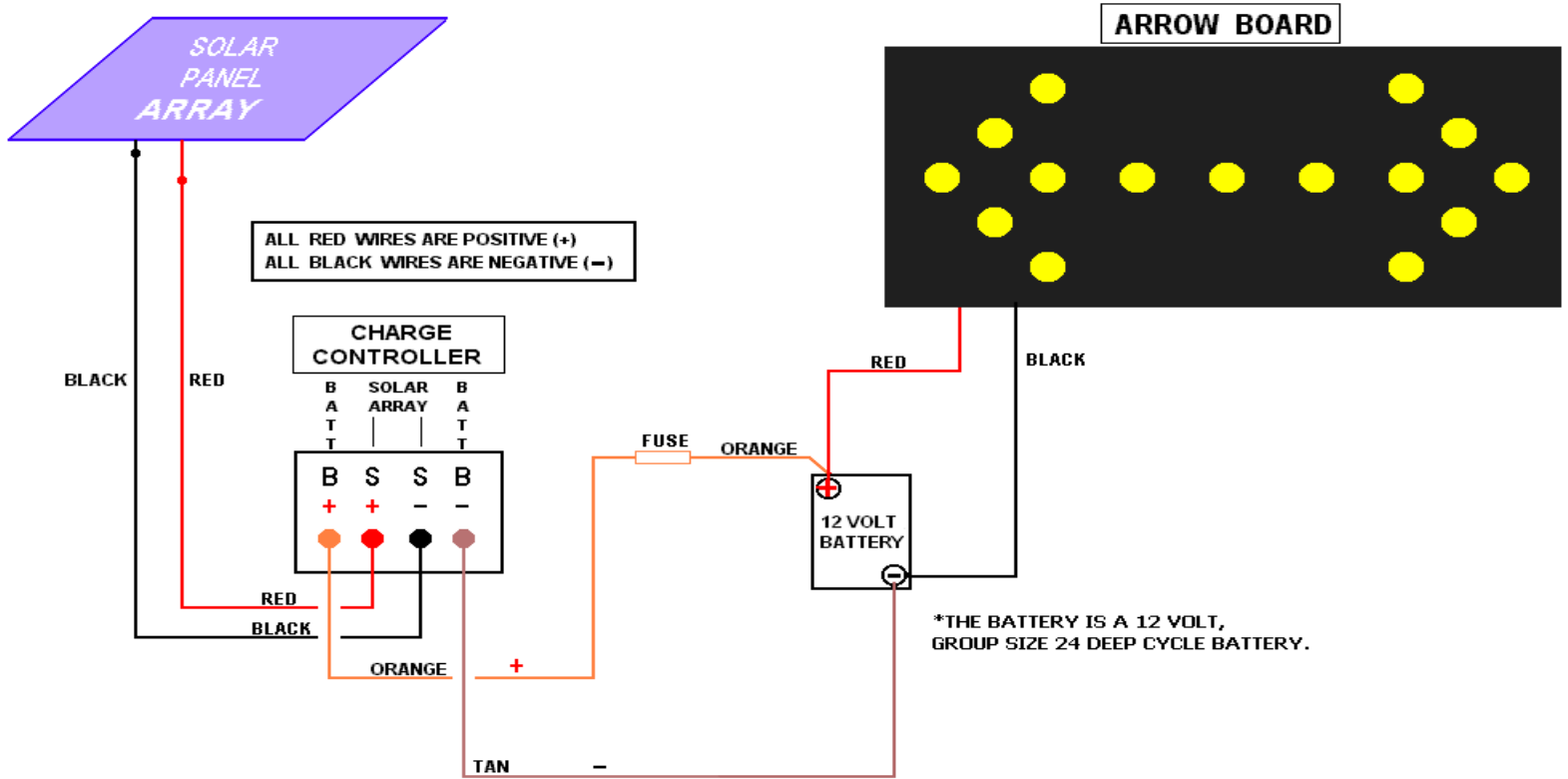
(Picture 7)

Mark the solar panel power lead end with a bit of tape. Route the solar panel power lead and the sign panel power lead down the mount support to the battery box. Allow enough slack for sign panel to operate without pulling the cables and secure with heavy duty wire ties. Attach the sign panel power leads to the battery: Red (+) Black (-).

Attach the solar panel power leads (marked with tape) to the solar regulator: Red- Array(+) Black- Array(-)

Install battery box lid and secure with web strap.

TRAFCON ATTENUATOR POWER WIRING DIAGRAM



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