



Operator Manual

Crash Attenuator Truck



Curry Supply Co., 1477 Degol Industrial Drive, Hollidaysburg, PA 16648

YOUR JOBS. OUR TRUCKS.



TABLE OF CONTENTS

Sections

Introduction & Safety Messages.....	3
System Descriptions.....	5
Operating Instructions.....	8
Maintenance & Lubrication.....	10
Schematics.....	12
Troubleshooting.....	17
Warranty & Proprietary Information.....	19

SECTION 1

Introduction & Safety Messages

CONTACT US

Curry Supply Company

1477 Degol Industrial Drive, Hollidaysburg, PA 16648

service@currysupply.com CurrySupply.com

Parts 800.567.5127

Warranty Service 800.345.2829

MANUAL USAGE

This Technical Manual contains information to safely operate more than (1) configuration of "Curry Supply Crash Attenuator Truck". The parts shown may not reflect the exact configuration on your truck. "Custom" style trucks may have parts not listed. If a system is not covered in this manual, please contact Curry Supply Co. support at 800.345.2829 or service@currysupply.com.

All personnel working on or operating the machine must become familiar with the following safety messages.

Due to the nature of these processes, ensure that all safety information, warnings, and instructions are read and understood before any operation or maintenance procedures are performed.

This manual does not supersede any local, state, or federal laws.

WARNING, CAUTION, AND NOTES

The following definitions are found throughout the manual and apply as follows:

WARNING
OPERATING PROCEDURES AND TECHNIQUES COULD RESULT IN PERSONAL INJURY OR LOSS OF LIFE IF NOT FOLLOWED CORRECTLY.


CAUTION
OPERATING PROCEDURES AND TECHNIQUES WHICH COULD RESULT IN DAMAGE TO EQUIPMENT IF NOT FOLLOWED CORRECTLY.

NOTE
OPERATING PROCEDURES AND TECHNIQUES THAT ARE CONSIDERED ESSENTIAL TO EMPHASIZE.

GENERAL SAFETY


WARNING

IMPROPER USE OF EQUIPMENT
COULD CAUSE SERIOUS INJURY OR
DEATH. PLEASE READ AND
UNDERSTAND ALL INSTRUCTIONS.




CAUTION

ADVERSE WEATHER CONDITIONS
CAN CAUSE EQUIPMENT DAMAGE.
WHENEVER POSSIBLE, PERFORM
MAINTENANCE INDOORS.




WARNING

WHEN OPERATING OR WORKING
ON THE UNIT, KEEP HANDS AND
BODY PARTS CLEAR OF PINCH
POINTS.



WARNING

ALWAYS WEAR THE PROPER PPE
WHILE OPERATING THE UNIT.




WARNING

IMPROPER DISPLAY COULD
CAUSE A TRAFFIC ACCIDENT
RESULTING IN SEVERE INJURY
OR DEATH.




WARNING

ALWAYS WEAR YOUR SAFETY
BELT WHILE DRIVING THE
VEHICLE. IF VEHICLE TIPS, STAY
BUCKLED AND INSIDE OF CAB
AREA.




WARNING

CONTACT WITH LIVE
ELECTRICAL CIRCUITS COULD
DAMAGE EQUIPMENT OR
CAUSE INJURY.




WARNING

DO NOT OPERATE THE UNIT
WHILE INTOXICATED OR
EXTREMELY EXHAUSTED.




WARNING

MOVING PARTS CAN CRUSH AND
CUT. KEEP HANDS, FEET, HAIR,
AND LOOSE CLOTHING AWAY
FROM MOVING PARTS.



WARNING

DO NOT WALK ON TOP OF THE
VEHICLE. FALLING FROM
VEHICLE CAN RESULT IN
SERIOUS INJURY.



SECTION 2

System Descriptions

TRUCK WITH ATTENUATOR STOWED



FLOOD / WORK LIGHTS



Located around the vehicle bed, these provide light around the vehicle.

TRUCK WITH ATTENUATOR DEPLOYED



MAN BASKET AREA



Located on the side of the vehicle bed, this allows safe entrance by stairs into the bed from the outside.

REAR VIEW WITH ATTENUATOR STOWED



ARROW BOARD



Located on the rear of the vehicle, it raises when the scorpion lowers. This warns traffic by displaying an arrow or message.

ATTENUATOR CONTROLLER



Located in the cab, this control deploys and stows the scorpion attenuator.

INTERIOR ATTENUATOR CONTROLS



ARROW BOARD CONTROL BOX



Located in the cab, this control allows the operator to turn on and select the message displayed on the arrow board.

20-Dec-24

DUALOCK / MICO-LOCK



Located inside the cab, this will provide extra emergency braking in the event of an accident.

ADDITIONAL WORK LIGHT CONTROLS

(If Installed)



(Left Flood, Right Flood, Load Space Lights, Strobe)

These switches control any additional lighting options that may be installed. They are labeled accordingly. Examples are flood lights, strobe light, and load space lights.

SECTION 3

Operating Instructions

DEPLOY/LOWER THE ATTENUATOR

1. Ensure that both the area above and to the rear of the vehicle is clear.
2. Start the truck engine.
3. Make sure the truck is in the neutral position, with the parking brake set.
4. Using the attenuator controller, push and hold the "DOWN" button. The attenuator will unfold, and the arrow board will rise. Continue to hold the button until the sign is in the full upright position.



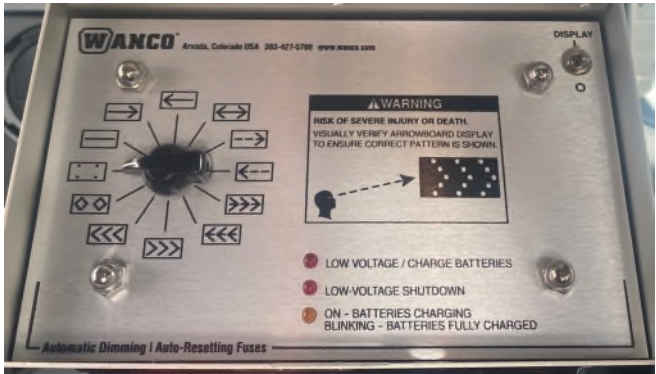
5. If the vehicle is in the desired location, apply the duallock/microlock.



ARROW BOARD CONTROL

(If Installed)

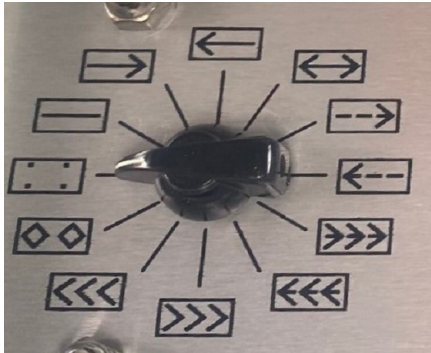
1. Open the arrow board control box on the dash.



2. Toggle the "DISPLAY" switch in the upper right side of the control box to "I" (ON).



3. The arrow board will now have power and be displaying the selected pattern.
4. Select a new arrow pattern using the dial on the left side of the control board.



WARNING

IMPROPER DISPLAY COULD CAUSE A TRAFFIC ACCIDENT RESULTING IN SEVERE INJURY OR DEATH. VISUALLY INSPECT ARROW BOARD TO ENSURE CORRECT PATTERN IS DISPLAYED.

5. To turn off the arrow board, toggle the display switch to "O" (OFF).

STOWING / RAISING THE ATTENUATOR

1. Ensure that both the area above and to the rear of the vehicle is clear.
2. Shut off the display switch inside the arrow board control box.
3. Press and hold the "UP" button on the attenuator control. The arrow board will lower, and once it is completely down, the attenuator will fold up into the stowed position. Hold in button for an additional two seconds to make sure it is fully stowed.



4. If the vehicle is to be transported, ensure that the drop jacks are fully retracted and pinned, and that the swivel jacks are fully retracted and rotated to the stored and locked position.



5. Release Duallock / micolock if engaged.

ADDITIONAL OPERATIONS

WORK LIGHTS (If Installed)

1. The strobe lights, flood lights, and work lights can be activated using the dash switches.
2. To turn these on, select the desired switch, and toggle it UP to the on position.



3. To turn these lights off, toggle the switch DOWN.

SECTION 4

Maintenance & Lubrication

Performance of the Scorpion can be compromised if it is not maintained properly, as a result it is highly recommended that you work with a Traffix Certified Scorpion Service and Repair Center to service it. Due to the advanced training received by our Certified Attenuator Program participants, it is recommended that you take your Scorpion to one of these Centers for an Annual Inspection and Re-Certification. Traffix maintains a list of these facilities and will be happy to assist you in finding one near you. As noted below, if the Scorpion is being used in a severe duty environment, we recommend more frequent inspection. Standard use maintenance and inspection intervals are as follows:

DAILY PRE-USE INSPECTION

- Inspect for damaged, loose, or missing bolts, pins, cotter pins and safety snaps.
- Inspect for damage to the energy absorbing modules and aluminum tubes, checking for deep gouges, scratches, warping, or cracking.
- Inspect the steel structure for damage, warping, cracks, breaks, or other damage.
- Inspect all lights for proper operation (including arrow / message board if applicable).
- Cycle the unit from stowed to deployed and back to stowed, ensuring proper sequence and function.
- Check road clearance of TMA in deployed mode to ensure it is in specification (12 inches +/- 1 inch). If it is not, adjust it to meet the requirements.
- Ensure that retroreflective sheeting is in place and meets requirements for the job.
- When cycling the TMA up and down, check the lockout arm (between the cartridge and strut) for proper motion and alignment. When in the stowed position, the two pivoting sections of the lock out arm should form a straight line.
- Check visually for hydraulic leaks.
- Check to ensure that there are no loose items on the truck that can become a projectile during an impact.
- Make sure items in the cab of the vehicle are secure and cannot come loose and become a projectile should an impact occur.
- Any deficiencies should be corrected before use.

MONTHLY or every 1000 miles, whichever comes first:

- Inspect the steel structure for damage, looking for warping, cracks, breaks, or other damage, including the attachment to the truck frame.
- Inspect the Hydraulic system (hoses, fittings, connections) closely for any indication of leaks.
- Check hydraulic fluid level and top off if needed.
- Check and apply grease, as needed, to all grease fittings.
- Ensure that all electrical connections are corrosion free, all lights are securely attached and functioning correctly, and that covers for rear ICC light bar and Rear Taillights are securely attached and function smoothly.
- Cycle unit from fully stored to fully deployed position, and back. Check that the unit moves freely/properly, without binding, straining, or abnormal noise and that the alarm is functioning properly.
- Verify that the unit stores properly, supported by the center or side supports.
- Inspect wear plates on Cartridge Tubes and replace them if needed (TL-3 Scorpion C Units Equipped with side support post only).
- Galvanized sections should not be sanded if corroded or scratched but should be touched up with cold galvanizing compound.

ANNUALLY or every 12,000 miles, whichever comes first:

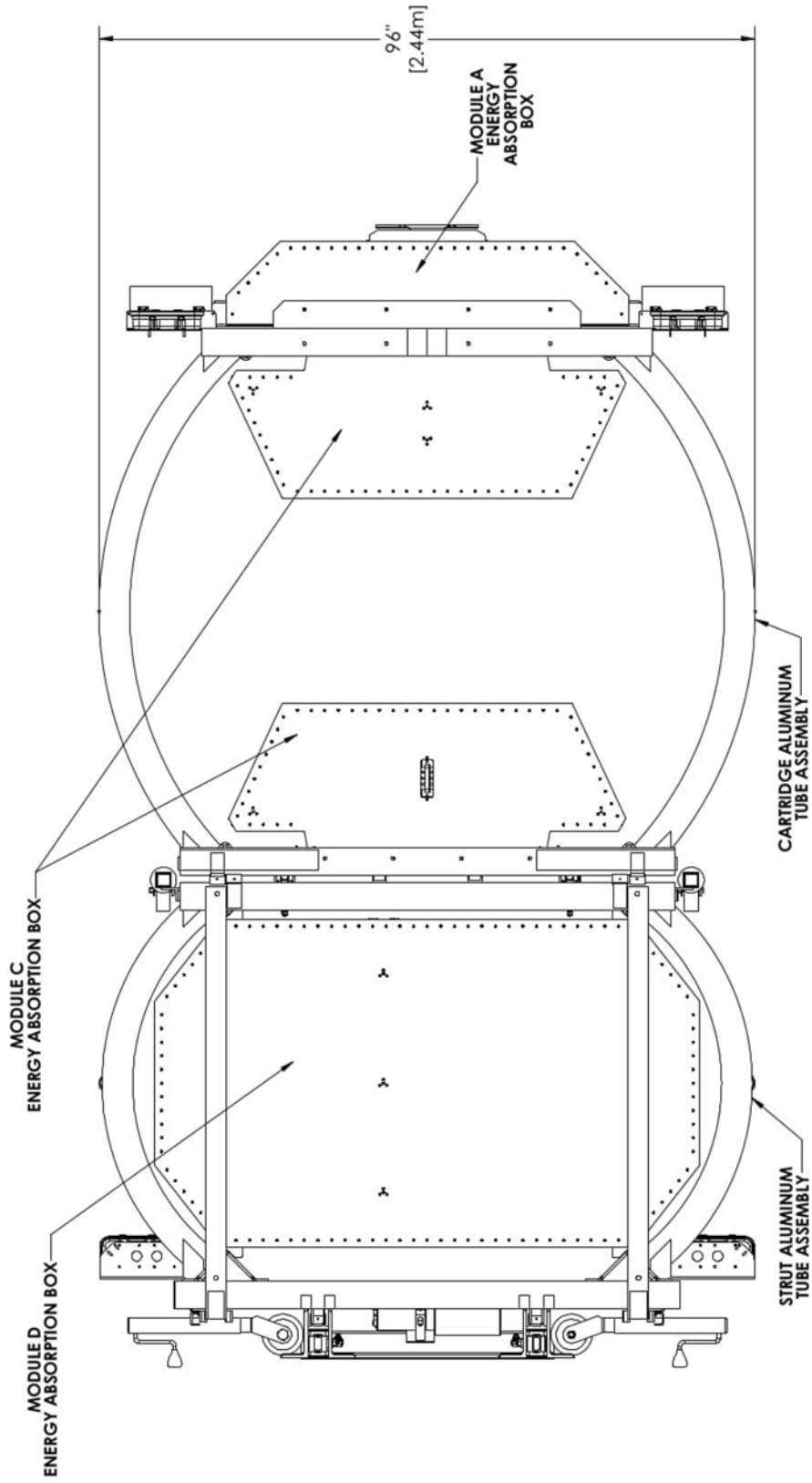
- Drain the hydraulic reservoir and refill with new fluid.
- Check the hydraulic system (hoses, fittings, connections) for leaks, including connectors and cylinders.
- Inspect all hinges, pins, and pivot points for wear.
- Remove and clean hydraulic power unit (pump) electrical connections, including solenoid connections, electrical coils, and electrical contacts on unit. When replacing be sure not to over-torque fasteners (coil bolts should be torqued to 80 in/lbs.).
- Disconnect, clean, or replace (as required), and re-connect all other electrical contact points.
- Consider taking your truck to a Scorpion Certified Attenuator Service and Repair Center for Maintenance Inspection and Re-Certification. This facility will also repair any deficiencies, if needed, and will certify on behalf of Traffix Devices, Inc., that your Scorpion is in an "As Manufactured Condition".

SECTION 5

Schematics

SCORPION TOP VIEW SCH1-1	PAGE 13
SCORPION SIDE VIEW SCH2-1	PAGE 14
SYSTEM WIRING FOR WIRED CONTROLLERS SCH3-1	PAGE 15
SYSTEM WIRING FOR WIRELESS CONTROLLERS SCH4-1	PAGE 16





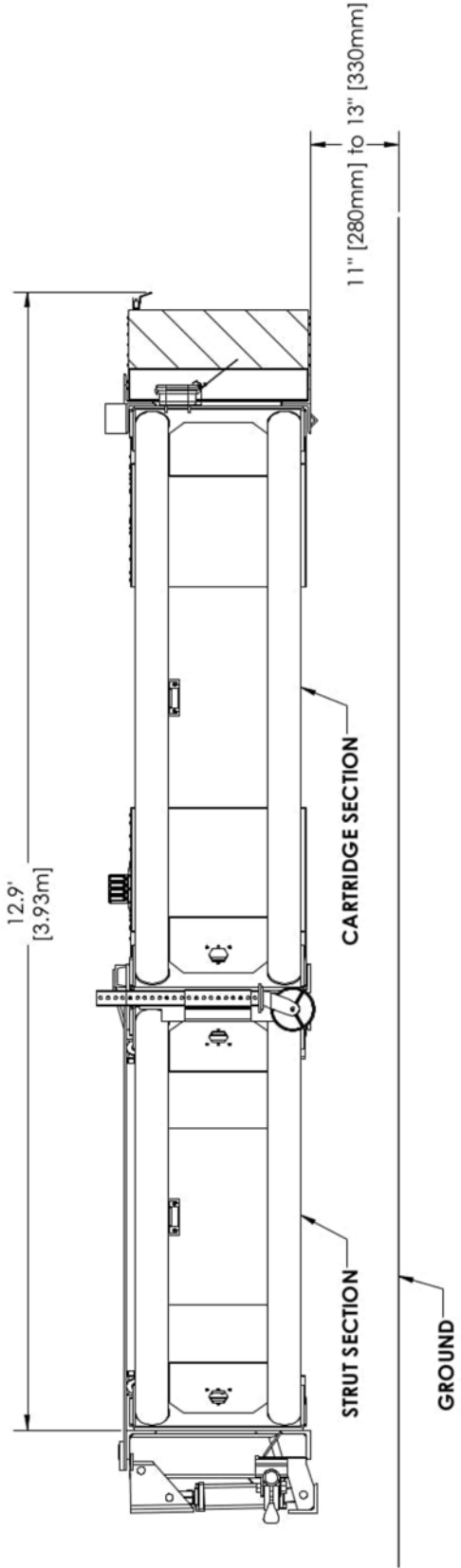
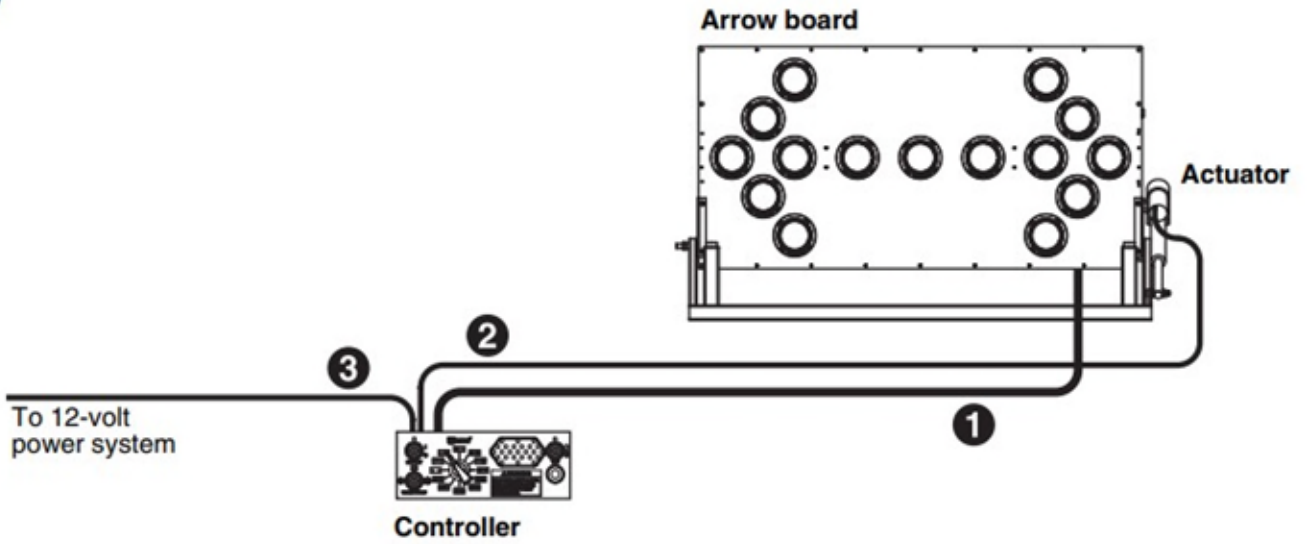


Figure 4-2. System wiring for wired controllers

Overview



Detail

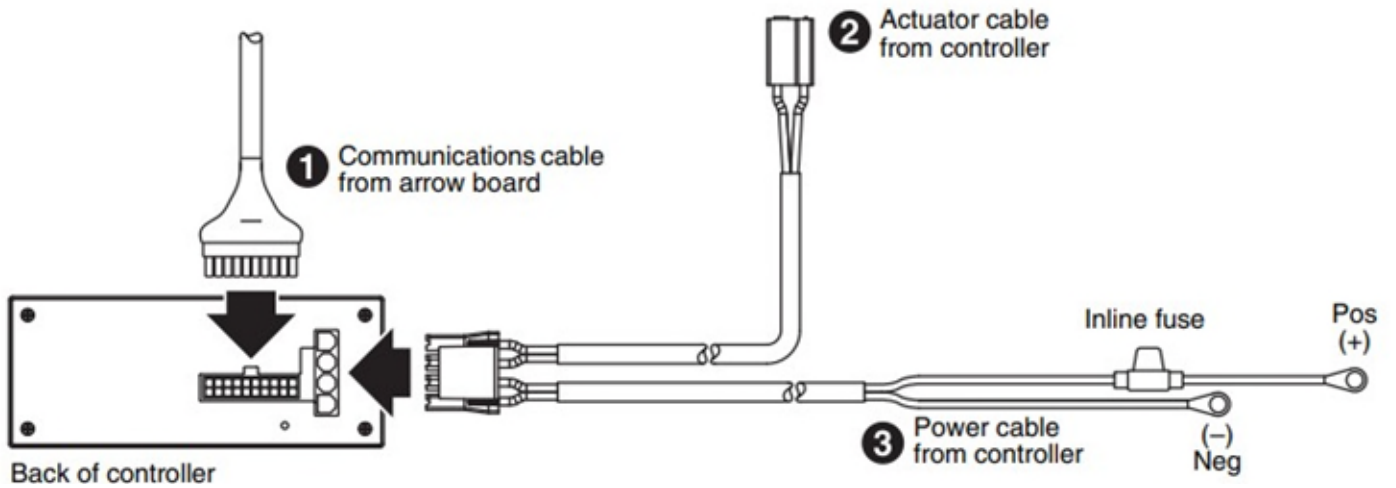
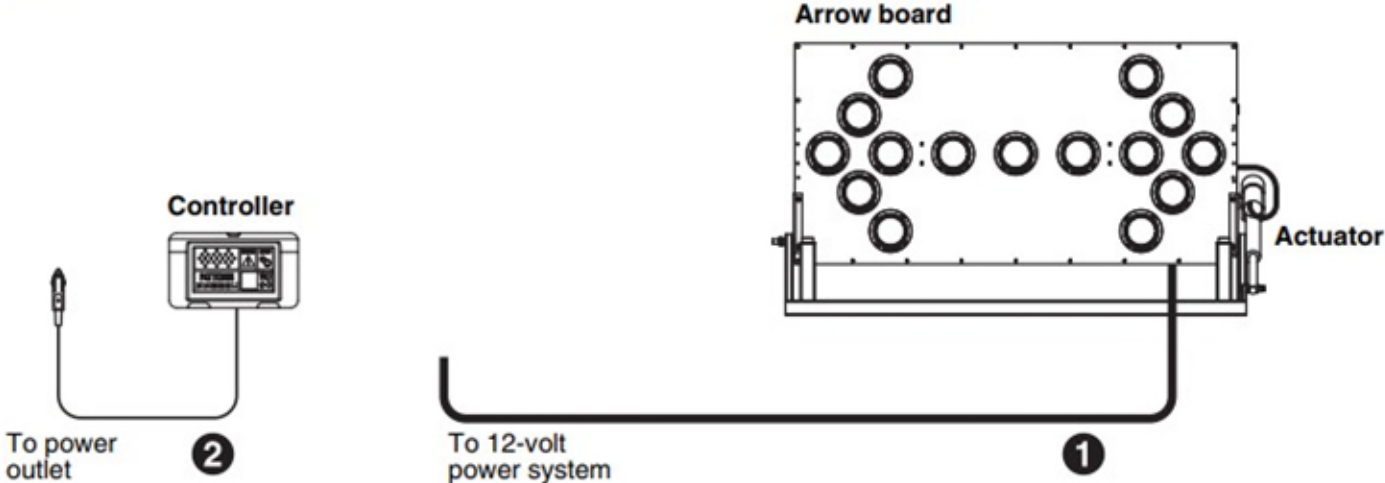
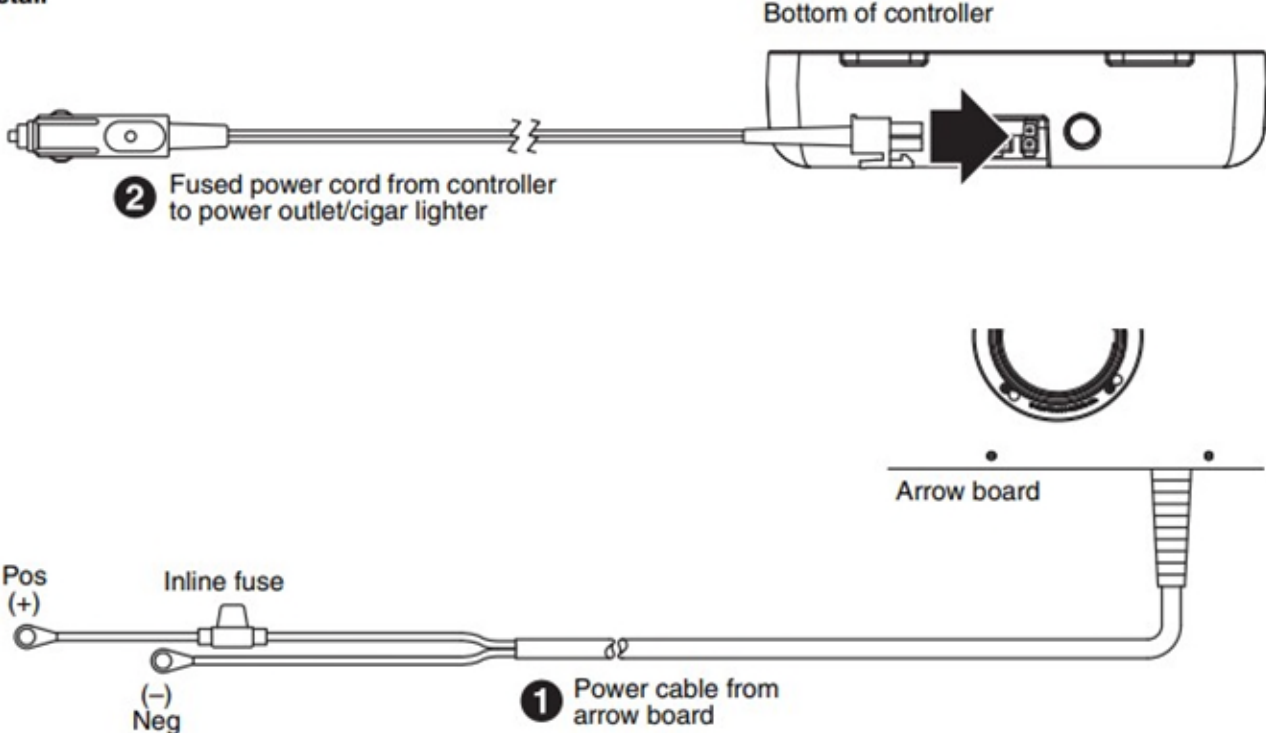


Figure 4-3. System wiring for wireless controllers

Overview



Detail



SECTION 6

Troubleshooting

PROBLEM	POSSIBLE CAUSE	REMEDIES
Attenuator will not deploy	Blow fuse truck battery box or aux battery below arrow board mount	Check fuses, diagnose cause, replace fuses.
	Transmission fluid is low or out	Check transmission fluid and refill to appropriate level.
	Operator did not hold the DOWN button in.	DOWN button must be held in the entire time until attenuator is fully deployed.
Attenuator will not stow	Blow fuse truck battery box or aux battery below arrow board mount	Check fuses, diagnose cause, replace fuses.
	Transmission fluid is low or out	Check transmission fluid and refill to appropriate level.
	Operator did not hold the UP button	UP button must be held in the entire time until attenuator is fully stowed
Arrow board not displaying any lights	Display is not turned on and has no power.	On the arrow control board, turn the display toggle switch to "I" to turn on and give power to the arrow board.
	Fuse is blown	Check fuse panel and replace any blown fuses.
	Photo eye and/or solar panel is dirty	Clear photo eye & solar panel on top of arrow board of debris or dirt.
Arrow board not displaying correct message	Control dial is on the wrong message pattern	Check arrow control board and change the control dial to the correct pattern

LINKS TO VENDOR SPECIFIC MANUALS

Scorpion Attenuator:

https://www.traffixdevices.com/docs/attenuators/scorpion-towable/traffix-scorpion-ta_manual.pdf

Wanco arrow board:

<https://media.wanco.com/7705024626043>



For technical help or parts, please have the model number available and call our customer service.

SECTION 7

Warranty & Proprietary Information

Curry Supply Company warrants products designed and manufactured by Curry Supply Company to be free from defects in material and workmanship under proper use and maintenance. Products must be installed and operated in accordance with Curry Supply's written instructions and capacities. All warranty periods will begin on the in-service date as defined in this document. This warranty shall cover the following Curry Supply Products:

	1 Year	2 Years	Variable
On Road Water / Flatbed / Crash Attenuator / Lube Skid			
Curry Manufactured Components		✓	
Paint Coverage on Curry Manufactured Parts	✓		
Parts	✓		
Repair Labor	✓		
Off Road / Dump / Industrial Carrier / Vacuum / Winch / Railroad			
Tank	✓		
Tank Exterior Paint Coverage	✓		
Parts	✓		
Repair Labor	✓		
Mechanics			
Body (Refer to Manufacture Warranty)			✓
Crane (Refer to Manufacture Warranty))			✓
Paint Coverage (Refer to Manufacture Warranty)			✓
Parts (Refer to Manufacture Warranty)			✓
Repair Labor (Refer to Manufacture Warranty)			✓
Lube			
Body (Refer to Manufacture Warranty)	✓		
Tanks (Refer to Manufacture Warranty)			✓
Parts	✓		
Repair Labor	✓		
Paint Coverage	✓		
Utility Lift			
Body (Refer to Manufacture Warranty)			✓
Lift (Axion)			✓
Parts	✓		
Repair Labor	✓		
Body Paint Coverage	✓		

Definitions

Curry Supply Manufactured Components/Structures – Includes any structural weldment or load bearing support structure manufactured by Curry Supply Company.

Rust Through on Curry Supply Components/Structures – Rust Through is defined as a hole in the metal caused by corrosion. Excluded is corrosion caused by external caustics, including but not limited to improper cleaning material, road salt and other chemicals left on the structure for extended periods of time.

Paint Coverage on Curry Supply Manufactured Parts – Curry Supply guarantees that exterior paint will not fail in terms of adhesion, blistering or unreasonable loss of color or gloss for a 1-year period. Excluded is damage such as chips, dents, scratches, tank interior coating, and corrosion due to caustic chemicals (e.g. Brine Solution / Leachate) and dirt build-up. Regular cleaning and maintenance of the product to remove external factors is expected to keep this warranty in force.

Vendor Supplied Components/Structures – Products purchased by Curry Supply from outside vendors. These items shall be covered by the warranty offered by the respective manufacturer only. Curry Supply does not obligate itself to any such warranty.

Warranty Process

Curry Supply's obligation under this warranty is limited to, and the sole remedy for any such defect shall be, the repair and/or replacement (at Curry Supply's option) of the unaltered part and/or component in question. Curry Supply after-sales service personnel must be notified by telephone, email, or letter of any warranty applicable damage within fourteen (14) days of its occurrence. If possible, Curry Supply will ship the replacement part within 24 hours of notification by the most economical, yet expedient, means possible. Expedited freight delivery will be at the expense of the owner.

Warranty claims must be submitted and shall be processed in accordance with Curry Supply's established warranty claim procedure. Curry Supply after-sales service personnel must be contacted prior to any warranty claim. A return materials authorization (RMA) may be issued to the claiming party prior to the return of warranty parts. Parts returned without prior authorization will not be recognized for warranty consideration. All damaged parts must be returned to Curry Supply freight prepaid; freight collect returns will be refused. Freight reimbursement of returned parts will be considered as part of the warranty claim.

Warranty Repair

Warranty service will be performed by any Curry Supply factory, Curry Supply mobile technician, Curry Supply authorized service partner, or by the affected owner. At the time of requesting warranty service, Curry Supply after-sales service personnel will verify date of delivery of the product. The owner shall be obligated to pay for any overtime labor requested of the servicing company by the owner, any field service call charges, and any towing and/or transportation charges associated with moving the equipment to the designated repair/service provider.

All obligations of Curry Supply and its service providers shall be voided if someone other than an authorized Curry Supply provider performs other than routine maintenance service without prior written or verbal approval from Curry Supply. In the case repair work is performed on a Curry Supply-manufactured product, original Curry Supply parts must be used to keep the warranty in force. The warranty may also be voided if the product is modified or altered in any way not approved, in writing, by Curry Supply.

Warranty Limitations/Responsibilities

This warranty covers only defective material and workmanship. It does not cover depreciation or damage caused by normal wear and tear, accident, mishap, untrained operators, or improper or unintended use. The owner has the obligation of performing routine care and maintenance duties as stated in Curry Supply's written instructions, recommendations, and specifications. Any damage resulting from owner/operator failure to perform such duties shall void the coverage of this warranty. The owner will pay the cost of labor and supplies associated with routine maintenance.

The only remedies the owner has in connection with the breach or performance of any warranty on the Curry Supply product specified are those set above. In no event will Curry Supply, or any company affiliated with Curry Supply, be liable for business interruptions, costs of delay, or for any special, indirect, incidental, or consequential costs or damages. Such costs may include, but are not limited to, loss of time, loss of revenue, loss of use, wages, salaries, commissions, lodging, meals, towing, hydraulic fluid, or any other incidental cost.

All products purchased by Curry Supply from outside vendors shall be covered by the warranty offered by that respective manufacturer only. Curry Supply does not participate in, or obligate itself to, any such warranty.

Curry Supply reserves the right to make changes in design or improvement upon its products without imposing upon itself the same upon its products theretofore manufactured.

This warranty will apply to all Curry Supply manufactured components/structures and upfit workmanship shipped from Curry Supply's factory. The warranty is for the use of the original owner only and is not transferable without prior written permission from Curry Supply.

Curry Supply After-Sales Contact Information:

Phone: (800) 345-2829

Email: service@currysupply.com

Mailing Address: 1477 DeGol Industrial Drive, Hollidaysburg, PA 16648

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISION OF MATERIAL AND SERVICES, AS SPECIFIED HEREIN. CURRY SUPPLY COMPANY IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

EXCEPT AS STATED, THERE IS NO WARRANTY, EXPRESS OR IMPLIED, IN CONNECTION WITH THE DESIGN, MANUFACTURE, SALE OR USE OF THE MACHINERY, ACCESSORIES, EQUIPMENT AND PARTS SOLD BY CURRY SUPPLY CO. CURRY SUPPLY COMPANY'S LIABILITY ON ITS WARRANTY SHALL IN NO EVENT EXCEED THE COST OF THE ITEM OF SALE.