

TRUCKCRAFT CORPORATION
 5751 Molly Pitcher Hwy. S.
 Chambersburg, Pa. 17201
 Phone: 800.375.3867 or 717.375.2900
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www.truckcraft.com



"WHERE WORKMANSHIP IS EVERYTHING"

Contents

Contents	1
Preface	2
Ordering Repair Parts	2
General Information	3
Operating Instructions	4
Maintenance	7
Installation Instructions for TC-131 D-ICER	8
Installing the Tailgate Replacement Unit	8
Installing the Spinner Unit	8
Installing the Electronic Controls	9
Wiring Harness Routing	11
Exploded Parts List	12 - 13
TC-131/TC101 Adapter Kit	14
Warranty	15

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Preface

Read this manual carefully and follow its recommendations.

This manual contains information for the installation, operation, and maintenance of the TruckCraft TC-131 D-ICER unit. Proper care and operation of the spreader will assure years of dependable service. Your local TruckCraft Dealer will instruct you in its general operation. Please have all operators carefully read this manual thoroughly before using equipment and keep it for reference. TruckCraft Corporation will be glad to answer any questions that may arise regarding the operation of your spreader.

Ordering Repair Parts

When service is necessary, your local TruckCraft dealer can provide the assistance you need. Dealers in your area can be found on the web at **www.truckcraft.com**. Always obtain original TruckCraft replacement parts from your dealer, substitute items could affect the performance and warranty of the unit.

When ordering parts for the **Model TC-131** have unit serial number, ECU serial number and description, or part number, of items required. **The unit serial number is located on the bottom right side of the spreader. The ECU serial number is located on the back of the control in the upper right hand corner-10 digit number.**

Unit Serial Number: _____

ECU Serial Number: _____

Date of Purchase: _____

Purchased From: _____

TruckCraft Telephone #800.375.3867 or 717.375.2900
TruckCraft Fax #717.375.2975

Method of shipping parts to be specified such as customer pickup, UPS, Common Carrier, Parcel Post or Air Freight. All orders to be confirmed in writing, or faxed, to insure proper understanding of request.

Having preventative maintenance parts on hand could save you valuable time.

Improvements and Changes

Because TruckCraft strives to continually improve our products, we reserve the right to make changes and improvements wherever practical, without obligation to make those same changes or improvements to the equipment already sold. Photographs used in this manual may not be up-to-date with current design changes.

General Information

The TC-131 D-ICER is designed to fit our TC-101 Magnum and TC-121 Ultra Aluminum Pickup Dump Bed. With mounting adapters, it will fit other models and brands of dump beds as well.

The TC-131 D-ICER consists of three independent components:

- Tailgate replacement assembly
- Spinner assembly
- Electrical control system

This unit is designed to handle all **free-flowing** ice control materials, including sand, salt, and abrasive up to $\frac{3}{4}$ " in diameter. It will not break up frozen lumps and cannot force material into the auger if the material is not free flowing. The maximum flow rate is 10,000 pounds per hour of material.



Figure 1 - TC-131 D-ICER



Figure 2 - View with cover raised

Operating Instructions



THIS SYMBOL IS USED THROUGHTOUT THIS BOOK WHENEVER PERSONAL SAFETY IS INVOLVED. TAKE TIME TO READ AND FOLLOW THE INSTRUCTIONS. BE CAREFUL!

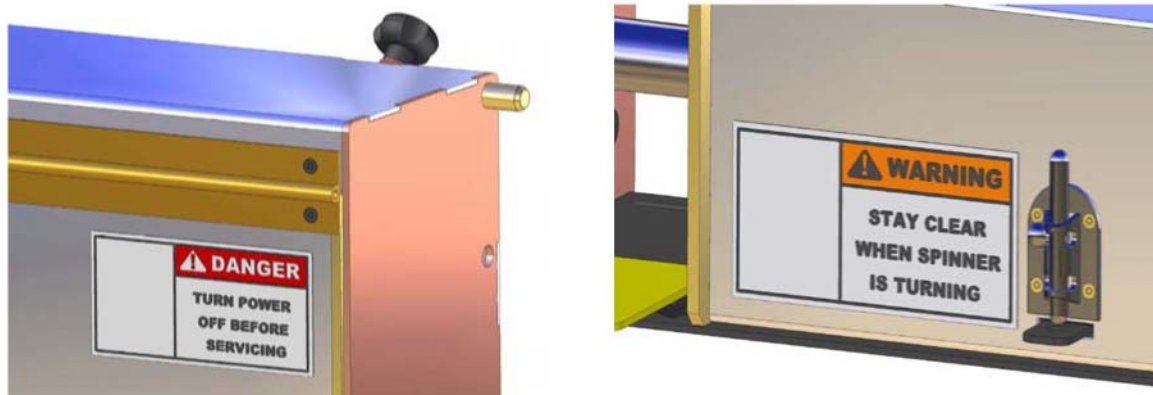


Figure 3



Observe the following safety procedures before and during use of spreader. Avoid possible injury and damage to equipment by following these rules and applying common sense.

Safety:

- **REVIEW** the operating instructions that were furnished with your dump body.
- **NEVER** exceed the rating of your truck, axles, or tires.
- **NEVER** exceed the manufacturers rating of the dump bed.
- **ALWAYS** watch for overhead wires and other height limitations when driving with bed lifted.
- **NEVER** drive with the dump bed raised any more than absolutely necessary.
- **NEVER** drive with the bed lifted when road surface is not level.
- **NEVER** allow frozen clumps to get into the auger.
- **NEVER** operate the auger with the cover open.

Operation:

Positioning the spinner

Raise the bed while observing the clearance between the spinner unit and the auger housing. With the spinner unit positioned approximately as shown on **Figure 4**, load some deicing material in the bed for final adjustment of the spinner. Position the bed with the front bottom edge at eye level when sitting in the cab. This is the recommended operating position and the position to have the bed in when making final adjustments to the spinner location. With the bed raised to this elevation you can now run some material through the spinner and adjust the pattern to the position that you want it. Moving the spinner toward the auger moves the pattern clockwise and moving it away from the auger causes the pattern to move counterclockwise. The speed of the spinner changes the distance the material will be thrown and consequently the area to be covered.

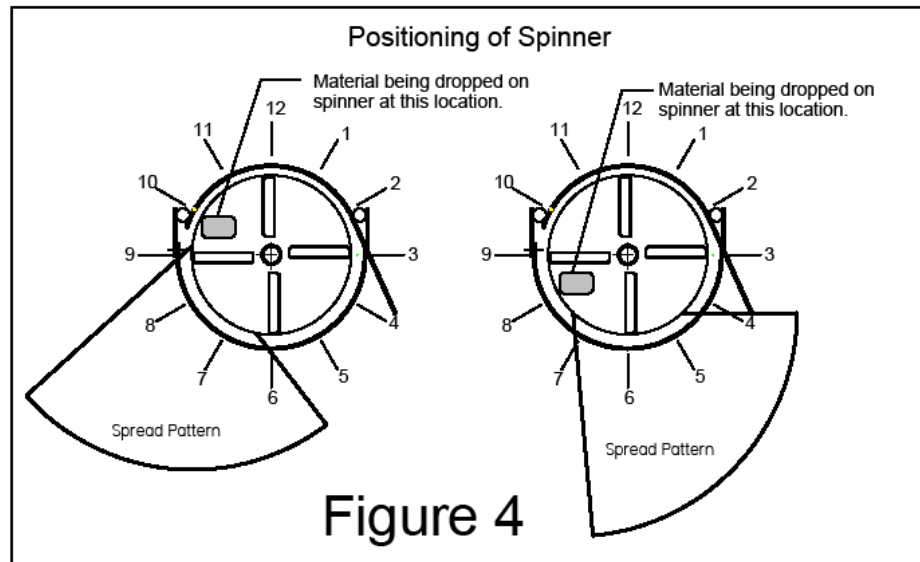


Figure 4

Baffle

In front of the auger on the driver's side is a bolt in baffle weldment, Fig. 5. This baffle is used to prevent material from emptying from the bed when the bed is down and the auger is not running.



Figure 5

Spreading material

It is recommended that you not drive the truck with the bed raised any more than is necessary, and that you be constantly vigilant in watching for overhead obstructions and wires. When the auger empties the material that flows into it, stop and raise the bed to cause more material to flow into the auger. The speed of the auger controls the volume of material being spread while the speed of the spinner controls the area that is being covered.

Caution: Before starting auger and spinner make sure everyone is clear of the spreader area. Be sure power is turned off before working on or around the spreader equipment.

The Electronic Control Unit (ECU) provides all the controls for the D-ICER, see Fig. 6. When preparing to spread material, push the spreader “On/Off” power button. A “V 1.02XB” (Numbers may change on ECU updates) will appear in the Menu window indicating the unit is powered up. Push the motor “On/Off” power button. A “0” will appear in the spinner and auger windows. Select the up arrow until a “4” or “5” appears in both windows. Check at the rear of the truck to make sure the spinner is turning and spreading material. With the motor selector on, push the menu button and note the following sequence of displays as the button is pushed repeatedly:

- “12.0 BV” - Battery voltage-varies with vehicle and condition of electrical system. **Note:** a low battery warning will display in the menu window if voltage falls below 10 Volts.
- “12.0 SV” - Solenoid voltage-value should be close to BV.
- “100° F” - Electronic board temperature. **Note:** an over temperature warning will display in the menu window if temperature exceeds 180° F.
- “Running”
- “10 60 I” - Spinner amperage first; auger amperage second. **Note:** an over current warning will display in the menu window if auger current exceeds 70 A. or spinner current exceeds 35 A.

Routine stopping and starting of the spinner and auger should be performed by pushing the motor “On/Off” button. **Note:** Using this method, the speed settings are retained by the controller and when the button is pushed to restart, the motors are returned to their previous speeds.

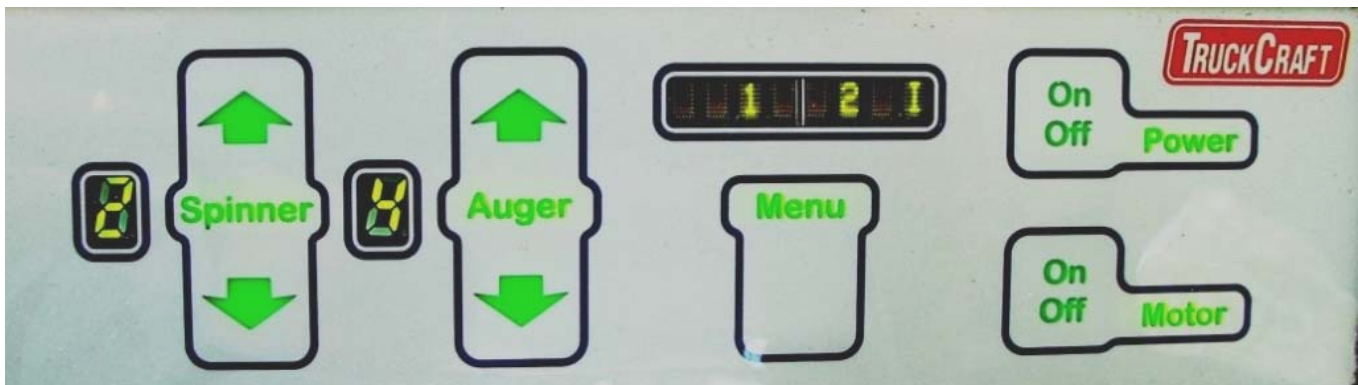


Figure 6 with spinner/auger amperage shown

Screened material should be used whenever possible to avoid clogging the auger. If a jam occurs the ECU motor speeds will flash and an auger over current warning will display in the menu area of the ECU. If this occurs, lower the dump body and push the motor "On/Off" button to shut the system down. Unplug the auger power cable from the motor harness. The plug is located at the rear of the truck on the driver's side. **Warning: Always unplug the auger before attempting to clear a clog. Accidental starting of the auger could result in serious injury.**

Raise barrel bolt latches on access cover and raise cover for access to the jam. A pipe wrench can be used to turn the auger in the reverse direction to assist in cleaning the jam. Close the cover and latch prior to plugging the auger motor back into the harness.

Maintenance

Auger bearings

Once per season add a small amount of grease slowly to each bearing. Take care to not add the grease to fast or it will dislodge the end covers.

Roller Chain

Spray periodically with a high quality chain lubricant such as PJ1 Blue Label Chain Lube or equivalent.

Entire unit

At the end of the season do a thorough wash down and cleaning prior to storing the unit for the summer.

Installation Instructions for TC-131 D-ICER

Installing the Tailgate Replacement Unit

(See Parts drawings at end of manual for D-ICER details)

Replace the existing tailgate with the auger unit, Fig.7



Figure 7

Installing the Spinner Unit

(See Parts drawings at end of manual for D-ICER details)

Open the Auger Access cover and locate the four holes in the bottom plate. Align these holes with the mount holes in the spinner support channel and center brace in the housing and bolt the spinner in place. The spinner can be adjusted front to back by relocating the pin in the support channel holes. Relocating the spacers on the mounting pin provides side to side adjustment. Plug the spinner motor cord into the motors harness.

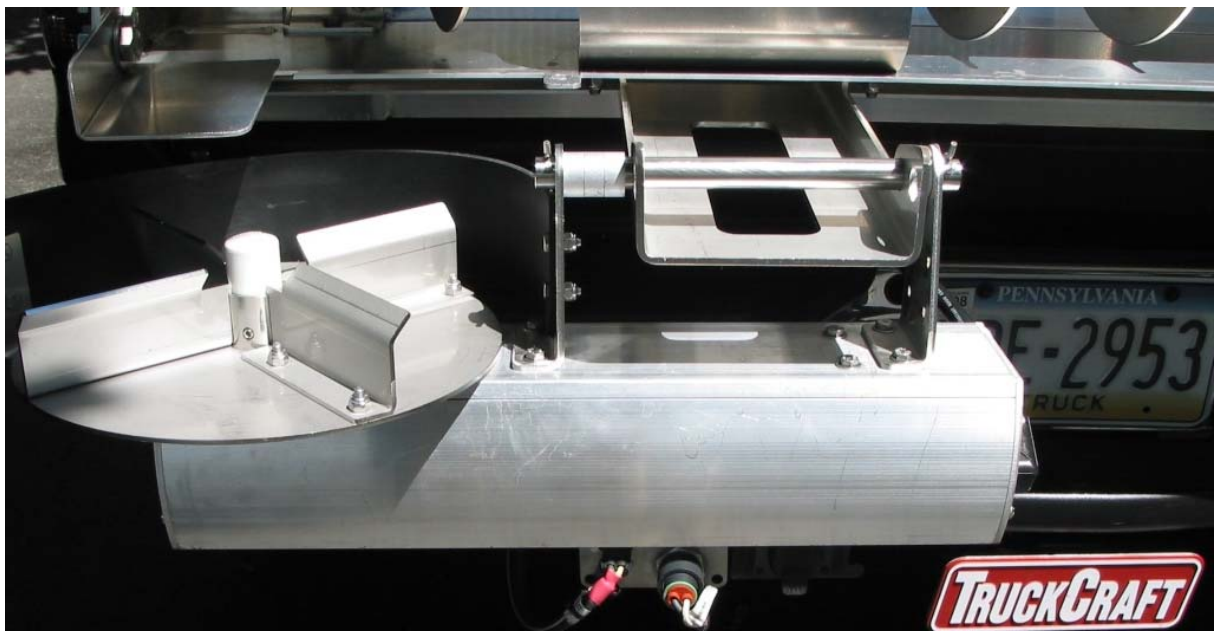


Figure 8

Installing the Electronic Controls

(See Drawing C2-04310, Figure 12, & Parts List Figure 13 & 14)

- Step #1** Find a suitable location for the Electronic Controller Assembly (ECU module only is C4-03879) in the cab. A good location is over the transmission with the bracket bolted to the floor or to the underside of the dash. **CAUTION:** Do not mount unit in the deployment path of the air bags.
- Step #2** Install the Power Harness B4-04221, Item 1, in the engine compartment. This harness includes a black box that contains a solenoid for turning the main ECU power on and off. The box also includes a 125 amp fuse for protection of the main power wiring. Install the harness with the black box located close to the battery. **Do not attach the four wire lugs to the battery until all other wiring is installed.** Attach the wiring harness to existing wiring, brackets, or other non-moving parts in the engine compartment. **Do not attach or get the wiring harness near heat generating components.** Find a location on the firewall to run the wiring through. An existing opening with a rubber grommet is preferred. Most truck manufacturers provide an opening for this purpose and locate it near the fuse box under the dash, Fig. 9.



Figure 9

- Step #3** Install the Motors Wiring Harness B4-04222, Item 2. At the rear of the truck on the driver's side find a suitable location to mount the bracket holding the plugs at one end of the wiring harness. The stainless steel bracket does not need to be painted. Use the holes in the bracket to locate (2) 3/16" diameter drilled holes to mount the bracket to the truck. Make sure the location is easily accessible and within reach of the power cords attached to the auger and spinner motors. Do not locate the plugs in an area where snow, mud and ice accumulate from tire spray. Run the harness along the truck frame beneath the deck and into the cab. Assure that the wiring harness does not contact any sharp objects and is not located too near any heat sources.
- Step #4** Plug the ends of both wiring harnesses into the back of the ECU unit in the cab as shown below in Figure 10.
- Step #5** Plug the auger and spinner power cords into the plugs on the Motors Harness. Connect the positive and negative wires to the battery in the engine compartment.

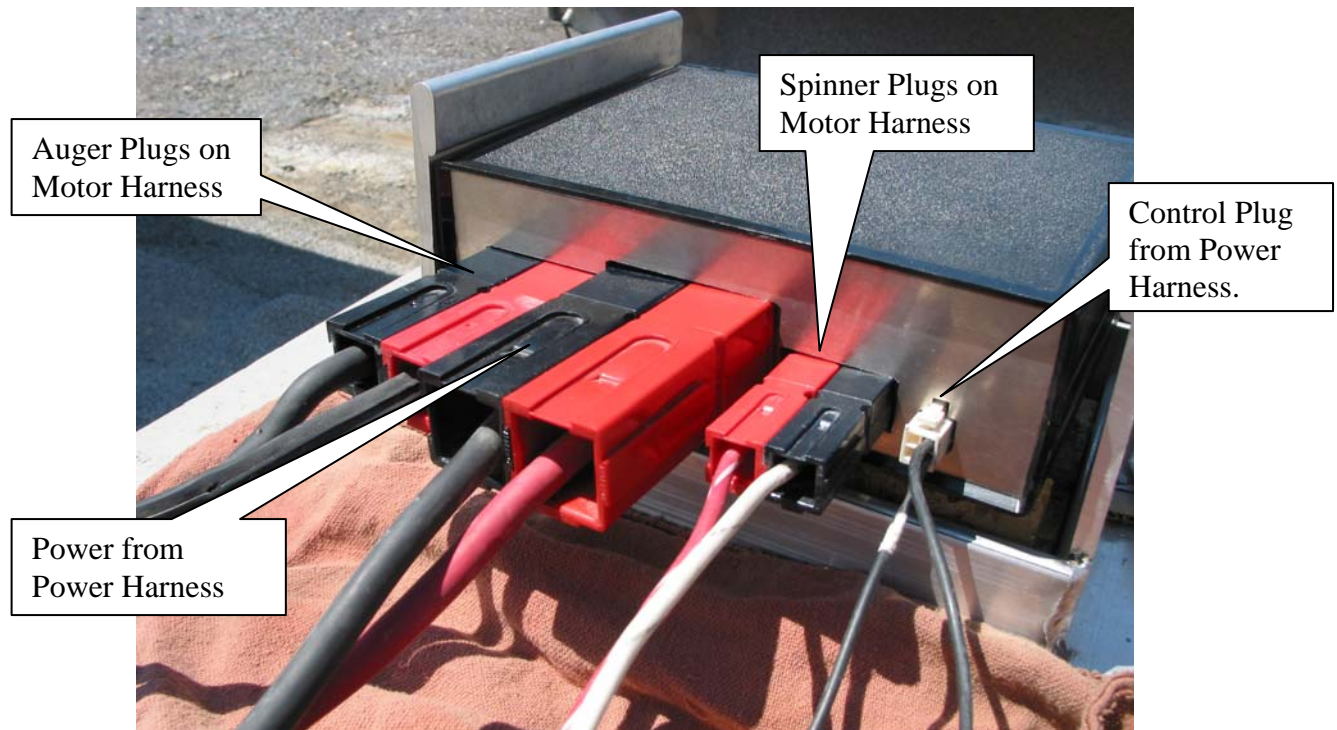
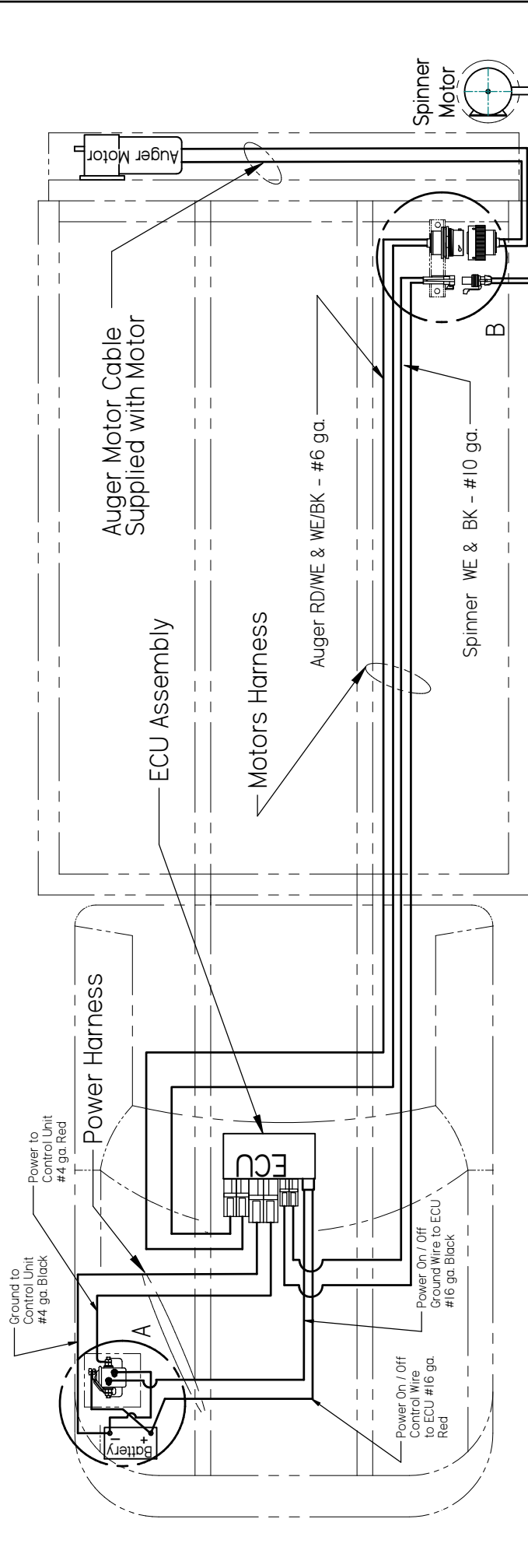


Figure 10

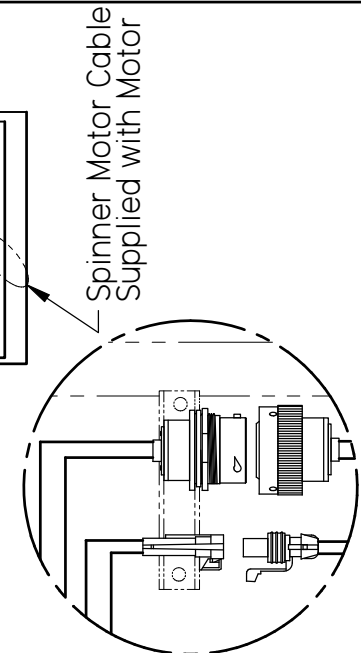
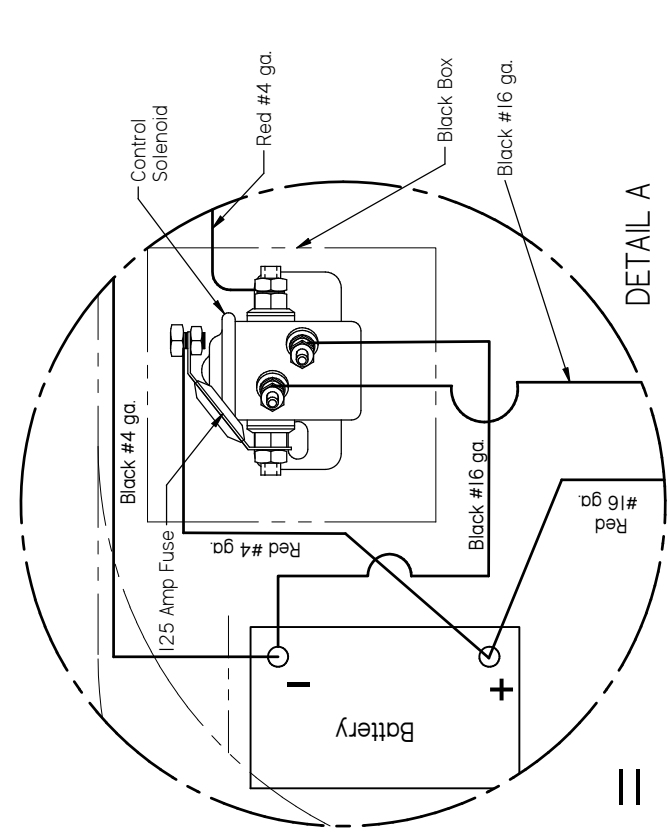
- Step #6** Plug the auger and spinner motor cords into the receptacle plugs at the back of the truck. Connect the positive and the negative wires to the battery.
- Step #7** Make sure that no one is near the D-ICER prior to turning the power on and checking out all of the functions. Fig. 11



Figure 11



Plan View of Truck



DETAIL B

See D-ICER Assembly bill of material for ECU and Harness Part Numbers.

Figure I2
I5-05580

		5751 Mohr Plank Highway Chambersburg, PA 17201 717-375-9000 FAX 717-375-2975	
TITLE: WIRING HARNESS ROUTING			
SCALE: NONE	DATE: 10/25/06	MATERIAL:	See Parts List
SHEET 1 OF 1	DRAWN BY: GEL	APPR BY:	DWG. NO. C2-04310

REMOVE ALL LETTERS, CHARACTERS OR
 RADIIUS CORNERS UNLESS OTHERWISE
 SHOWN. DIMENSIONS UNLESS OTHERWISE
 SHOWN ARE IN INCHES. DIMENSIONS
 IN TWO PLACES .000 +.003
 ANGLES 90°
 3. DO NOT SCALE DRAWING.

TC-131

TC-140

TC-160

