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Preface
Read and understand all sections of this manual prior to installing or operating the TC-160 D-ICER. This manual contains information for the installation, operation, and maintenance of the TruckCraft TC-160 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. 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 assistance. Always obtain original TruckCraft replacement parts from your dealer. Substitute items could affect the performance and warranty of the unit. If you cannot locate a dealer near you, contact TruckCraft Corporation. When ordering parts for the Model TC-160 have unit serial number, ECU serial number and description, or part number, of parts required. The unit serial number is located on the drivers side of the spreader body beneath the mounting plate-see Figure 8. The ECU serial number is located on the back of the unit 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 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.
Safety Information

Observe the following safety procedures during the use of the spreader: Before operating the spreader read and understand all information furnished with your dump body and in this manual.

- Before operating verify all guards are in place.
- Keep hands, feet and clothing away from moving parts.
- Maintain a minimum of 25 feet of clearance from operating spreader.
- Never exceed the rating of your truck, axles, or tires.
- Never exceed the manufacturer’s rating of the dump bed.
- Always watch for overhead wires and other height limitations when driving with the bed lifted.
- Never drive with the bed raised any more than absolutely necessary.
- Never drive with the bed lifted when the road surface is not level.
- Never allow frozen clumps to get into the auger.
- Before servicing, make sure the auger and spinner are stopped and power is turned off.
- Make sure equipment is properly supported when mounting, demounting or storing.
- Use flashing lights when operating spreader.
- Empty and clean spreader after every use.
- Tighten all fasteners to the recommended torque values in the Torque Chart shown below.

<table>
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<th>Torque Chart - 18-8 Stainless Steel Bolts</th>
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<td>-</td>
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</tbody>
</table>

FIGURE 1

FIGURE 2

FIGURE 3

FIGURE 4

FIGURE 5
Mounting Instructions

**CAUTION:** Verify lifting and support devices can support the spreader and component weights before picking up the components. Never attach chains of slings around auger to lift the spreader. Using the auger to lift the spreader may bend the auger shaft and void the warranty.

1. Bolt hinges and spreader mounting straps from mounting kit B2-04282 to auger body if not already attached.
2. Fasten the spinner assembly to the auger body. The spinner bracket should already be bolted to the bottom of the auger body. Attach the spinner assembly by inserting the slide mount into the bracket and fastening with the pin and hairpin as shown in Figure 8. Adjustment of the spinner location will be discussed later in the Operation section of the manual.
3. Position the spreader under the dump body as shown in the rear view of the assembly, Figure 6. The rear extension on the dump body side of the spreader should be as close to the body as possible. When open, the tailgate must be able to lie horizontally over the top of the spreader. Locate the spreader as high as possible with the tailgate in the horizontal position. Care must be used when mounting spreader on tandem axle dump trucks to keep the spreader and spinner from hitting the rear tires or chassis when the dump body is raised. Space the spreader out from the dump body.
body as required and close gaps between body and spreader with sheet metal, see **Figure 7**.

4. Many times projections from the rear of the dump body interfere with the mounting of the spreader. By loosening two pan head sheet metal screws as shown in **Figure 7** the rear extension can be easily removed from the auger body and notched to eliminate most interference problems prior to bolting the spreader to the dump body.

5. With the spreader positioned per steps 1-4, locate and drill four 7/16" diameter holes through the dump body on both sides. Attach the hinge plates as shown in **Figure 8**. Position support straps as high on dump body as possible. Locate and drill 9/16" diameter holes through dump body on both sides. Attach straps.

**Installing Electronic Control and Wiring Harnesses**

Use the “Wiring Harness Routing Schematic”, **Figure 17**, found on page #10 to assist in following the directions below.

1. Find a suitable location for the Electronic Control Unit (ECU) C2-04227 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.

2. Install the Power Wiring Harness B4-04221 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.

3. Install the Motors Wiring Harness B4-04222. 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.

4. Plug the ends of both wiring harnesses into the back of the ECU unit in the cab as shown below.

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.
Read and understand all sections of this manual prior to installing or operating the TC-160 D-ICER.

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

1. Position auger lid weldment vertical with locking pins secured.
2. With the dump body tailgate closed, 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.
3. 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 auger and spinner are both turning. Return to the cab.
4. With the motor selector on, push the menu button and note the following sequence of displays as the button is pushed repeatedly:

   9 "12.0 BV" - Battery voltage-varies with vehicle and condition of electrical system. Note: system will not function if BV falls below approx. 10 Volts.
   9 "12.0 SV" - Solenoid voltage-value should be close to BV.
   9 "100° F" - Electronic board temperature. Note: system will cease functioning if temperature exceeds 180° F.
   9 “Running”
   9 “10 60 1” - Spinner amperage first; auger amperage second. Note: combined amperage must not exceed 100 amps.

5. Push the “On/Off” power button to shut the system down.
6. With the auger lid raised to the up position, open the dump body tailgate from the bottom as wide as possible but not bearing against the lid weldment and set the tailgate chains to prevent it from contacting the lid.
7. Check the preliminary location of the spinner. It can be moved side to side by loosening the four bolts connecting the spinner bracket to the auger
housing. Front to back adjustment is made by pulling the hairpin and removing the cross pin on the adjustable slide mount. The slide mount can then be moved to another hole location.

8. With the spinner location temporarily established, turn the power to the spreader back on and restart the motors. Adjust the spinner and auger speeds while spreading a small amount of material to determine optimum speeds.

9. Perform a final positioning of the spinner as follows: 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 11, 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 run some material through the spinner and adjust the pattern to the position that you want. Moving the spinner as noted in step #7 above moves the spread pattern clockwise or counterclockwise as shown below. Most operators prefer the position shown in the left hand view. The speed of the spinner changes the distance the material will be thrown and consequently the area to be covered.

10. 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.

11. Screened material should be used whenever possible to avoid clogging the auger. If the auger stops or will not start due to a clog, 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.

12. Flip latch on front access cover and raise cover as shown in **Figure 12** for access to the jam. A pipe wrench can be used to turn the auger in the reverse direction to assist in clearing the jam. Close cover and lock in position with latch prior to plugging auger motor back into harness.

13. Baffle plates at auger feed to the spinner, **Figure 13**, can be adjusted to minimize the amount of material that drops onto the spinner when driving with the spreader turned off.

14. Procedure for dumping salt, sand or other material over the top of the spreader:
- With the dump body down, run the spreader to clear enough material to close and latch the tailgate.
- Run the spreader again until the material level in the auger body is low enough to permit the lid weldment to be lowered and latched in the closed position. The tailgate can then be reopened from the top or hinged flat from the bottom to permit dumping.
- Dump body tailgate chains must be adjusted to prevent the tailgate contacting the spreader lid (Improper adjustment can damage spreader lid and components and void warranty).
Maintenance

1. Auger bearings: Once per season add a small amount of marine grade grease slowly to each bearing on the ends of the housing. Take care to add grease slowly or it will dislodge the end covers.

2. Spinner gear box: At the end of the season, with spinner assembly removed from auger, remove end covers and slide housing apart to expose the gear box. The gear box side that the grease plug is screwed into must be horizontal. Unscrew the plug and add grease (Beacon 325-Exxon Co. or equivalent) as required.

3. Roller chain: Spray periodically with a high quality chain lubrication such as PJ1 Blue Label Chain Lube or equivalent.

4. Auger gear box: At the end of the season when the auger assembly has been removed from the truck, turn the assembly upside down. Pull the hair pin cotter shown in Figure 15. The auger motor/gear reducer cover can now be slid off exposing the assembly shown in the figure. Unscrew the plug in the reducer and add oil (Mobilgear SHC 320 or equivalent) as required.

5. The jack screw shown in Figure 16 eliminates twisting of the Auger Mount Plate when a jam occurs at the auger. The excess motor torque and shock load is transmitted through the jack screw to the structural mounting bracket. If the auger chain needs to be tightened, the jack screw needs to be backed off the motor plate. Then the six screws holding the motor mount can be loosened and the plate can be slid away from the auger to tighten the chain. After tightening the six motor mount screws reposition the jack screw so it touches the motor mount plate.

6. Entire Unit: At the end of the season do a thorough wash down and cleaning prior to storing the unit for the summer.
REMOVE ALL BURRS, CHAMFER, OR RADIUS CORNERS.

TOLERANCES UNLESS OTHERWISE SHOWN:

- TWO PLACES: ± .030
- THREE PLACES: ± .005
- ANGLES: ± 1°

DO NOT SCALE DRAWING.

1. Auger Motor
2. Spinner Motor
3. Plan View of Truck

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

Figure 17
16-04307
### MAKE FOLLOWING P/N CHANGES:

- **ITEM 30:** B4-04334
- **ITEM 51:** C4-04341
- **ITEM 52:** C4-04338
- **ITEM 61:** D3-04339
- **ITEM 62:** D3-04831

#### Revised 6/28/2010

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**Note:** The table continues with similar entries for other parts and components.
**Warranty**

TruckCraft Corporation warrants each **D-ICER** to be free from defects in material and workmanship for a period of **Two Years** from the date of sale to the original retail purchaser and agrees only to repair or replace at its own expense, any part or parts of the product found to be defective in material or workmanship, provided TruckCraft is notified of such defect or defects within the **Two Year** warranty period and given reasonable time to correct the defect.

Installation and operation of the product must be in accordance with TruckCraft’s instructions. Repairs required following improper use or application of any products shall not be considered defects within the scope of the foregoing warranty. Warranty will not be considered on any altered, modified, or misused part and failures due to lack of maintenance or accidents. TruckCraft does not warrant against corrosion. Warranty claims by the user must be made to the dealer from which the product was purchased, unless otherwise authorized by TruckCraft. This warranty does not cover the shipping costs of defective parts to or from the dealer. No claims for labor shall be considered unless preauthorized by TruckCraft. No dealer has authority to make any representation or promise on behalf of TruckCraft, or to alter or modify the terms or limitations of this warranty.
Dump Body Warranty Registration

To register your Warranty, please complete and forward this form within 30 days of purchase. Fax: 717-375-2975 or on line @ www.truckcraft.com

Business or individual name: ____________________________________________________________

Street: ____________________________________________________________________________

City: __________________ State: ______ Zip: ______

Date of purchase: __________ Dealer: ______________________________________________________

Serial #: ______________ For location see Owners Manual

Model: ☐ TC-131 ☐ TC-140 ☐ TC-160

Additional information which will help us improve our products.
What type of business or organization purchased this equipment:

☐ Municipality / Parks ☐ Landscape / Lawn Care / Nursery
☐ Property Management ☐ School / College / University
☐ Cemetery ☐ Farm / Ranch
☐ Personal use ☐ Golf Course
☐ Construction ☐ Other ________________________________