

SNO-WAY®

SNOW & ICE CONTROL EQUIPMENT

OWNER'S, INSTALLATION & PARTS MANUAL

V-BOX SPREADER POLY DUAL ELECTRIC MODEL PDE800 - 2 CUBIC YARD

SPREADERS WITH SERIAL NUMBERS BEFORE:
8PDE100000 SPREADER

CHUTES WITH SERIAL NUMBERS AFTER:
PDEL100000, PDESC100000

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INTRODUCTION

This manual was written for the assembly, installation and maintenance of your new Sno-Way® POLY DUAL V-BOX SPREADER. Most importantly, this manual provides an operating plan for safe use. Refer to the Table of Contents for an outline of this manual.

Please keep this manual with your machine at all times as reference material and so it can be passed on to the next owner if the machine is sold.

We require that you read and understand the contents of this manual COMPLETELY, especially the chapter on SAFETY, before attempting any procedure contained in this manual.



The Society of Automotive Engineers has adopted this SAFETY ALERT SYMBOL to pinpoint characteristics that, if NOT carefully followed, can create a safety hazard. When you see this symbol in this manual or on the machine itself, BE ALERT!, your personal safety and the safety of others, is involved.

• Defined in the next column, are the SAFETY ALERT messages and how they will appear in this manual.

WARNING
Information, that if not carefully followed, can cause personal injury or death!

CAUTION
Information, that if not carefully followed, can cause injury or damage to equipment!

NOTE: Additional information concerning the equipment or the procedure that may or may not be contained elsewhere in this manual.

BE AWARE! It is illegal to remove, deface or otherwise alter the safety decals mounted on this equipment.

Record the Spreader Serial Number and Spreader Model Number in the space provided below as a handy record for quick reference. The Serial Number decal is located on the drivers side frame support farthest from the discharge end. This decal contains information that your Dealer needs to answer questions, order replacement parts or to complete warranty work, if needed, for your unit.

NAME PLATE DATA
SPREADER MODEL NUMBER _____
SPREADER SERIAL NUMBER _____ PDE _____ <small>(Located on Front Support Bracket - DS)</small>
CHUTE SERIAL NUMBER:
PDESC (SHORT CHUTE) _____
PDELG (LONG CHUTE) _____
(FILL IN)

DEALER
NAME _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____
PHONE ()- _____
(FILL IN)

ORIGINAL PURCHASER
NAME _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____
PHONE ()- _____
(FILL IN)

We reserve the right to make changes or improve the design or construction of any part(s) without incurring the obligation to install such parts or make any changes on any unit previously delivered.

SAFETY

BEFORE ATTEMPTING ANY PROCEDURE IN THIS BOOK, READ AND UNDERSTAND ALL THE SAFETY INFORMATION CONTAINED IN THIS SECTION. IN ADDITION, ENSURE ALL INDIVIDUALS WORKING WITH YOU ARE ALSO FAMILIAR WITH THESE SAFETY PRECAUTIONS.

For your safety Warning and Information Decals have been placed on this product to remind the operator to take safety precautions. It is important that these decals are in place and are legible before operation begins. New decals can be obtained from Sno-Way or your local dealer.

REMEMBER The careful operator is the best operator. Most accidents are caused by human error. Certain precautions must be observed to prevent the possibility of injury to operator or bystanders and/or damage to equipment.

FIRST TIME OPERATION When running for the first time or after the unit has not been used for a long period of time, run and inspect the auger system without spinner and chute assembly attached.

NEVER operate spreader when under the influence of alcohol, drugs or other medications that could hamper your judgement and reactions. An accident may result in serious injury or death to other persons or yourself.

ALWAYS operate vehicle in a well-ventilated area. The carbon monoxide in exhaust gas is highly toxic and can cause injury or death.

NEVER wear wrist watches, rings or other jewelry when working on the vehicle or individual equipment. These things can catch on moving parts or cause an electrical short circuit that could result in personal injury.

ALWAYS wear safety goggles when working on the vehicle to protect your eyes from battery acid, gasoline, and dust or dirt from flying off of moving engine parts.

ALWAYS wear safety glasses with side shields when striking metal against metal! In addition, it is recommended that a softer (non-chipable) metal material be used to cushion the blow. Failure to heed could result in injury to the eye(s) or other parts of the body.

NEVER allow children or unauthorized person to operate this spreader.

NEVER exceed 45 m.p.h. when loaded spreader is attached to vehicle. Braking distances may be increased and handling characteristics may be impaired at speeds above 45 m.p.h.

ALWAYS lock the vehicle when unattended to prevent unauthorized operation.

ALWAYS check the job site for terrain hazards, obstructions and people.

ALWAYS check surrounding area for hazardous obstacles before operating this unit.

ALWAYS make sure personnel are clear of area being spread. Material is discharged from spreader at a high rate of speed and could injure bystanders.

NEVER leave materials in hopper for long periods of time. Remember salt is hygroscopic and will attract enough atmospheric moisture to cause it to “cake”.

NEVER work on the vehicle without having a fully serviced fire extinguisher available. A 5 lb or larger CO² or dry chemical unit specified for gasoline, chemical or electrical fires, is recommended.

ALWAYS make sure that all safety guards are in place before operating the spreader.

ALWAYS shut off the vehicle and spreader engines, place the vehicle transmission in “Park”, turn the vehicle and spreader ignition switches to “OFF” position and firmly apply the parking brake of the vehicle before servicing or making any adjustments to the spreader.

ALWAYS wait for all movement to stop before servicing or adjusting the spreader.

NEVER climb on or allow others to climb on the spreader.

ALWAYS reassemble any parts or hardware removed for cleaning or adjusting before operating the spreader.

ALWAYS remove any tools and other materials from the spreader before operating the spreader

ALWAYS use auxiliary warning lights, except when prohibited by law, when operating the spreader.

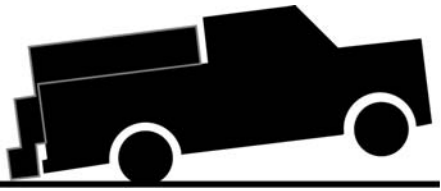
NEVER allow hands, hair or clothing to get near any moving part of the spreader. Never wear neckties or loose clothing when working on the spreader or the vehicle.

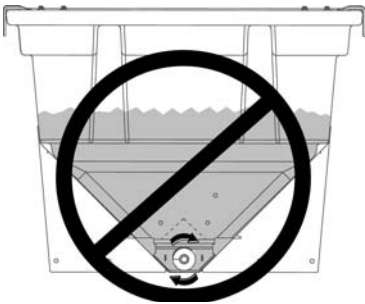
ALWAYS be aware of and avoid contact with hot surfaces such as engine and exhaust.

ALWAYS inspect the unit periodically for defects. Parts that are broken, missing or plainly worn must be replaced immediately. Never operate the unit when in need of maintenance.

REMEMBER it is the owner’s responsibility for communicating information on the safe use and proper maintenance of this machine.

GENERAL INFORMATION

WARNING	
	<p>Check the vehicle's load rating certification sticker for the maximum vehicle capacity, and DO NOT overload beyond the vehicle GVWR or GAWR. Overloading could result in an accident, or damage to the vehicle.</p> <p>FAILURE TO HEED CAN RESULT IN INJURY OR DEATH.</p>

IMPORTANT	
	<p>Proper spreader operation depends on material selection and usage.</p> <ul style="list-style-type: none"> • Spreading material, when left in the hopper overnight, may settle or accumulate moisture, become solid and jam the spreader auger. ALWAYS empty the spreader when not in use. • If improper materials are fed through the spreader or if materials are used improperly, constant circuit breaker tripping may result. <p>These conditions, resulting in burnt out electric motors will not be covered under warranty.</p>

Use the following tables to calculate the vehicle payload whenever you place material in the spreader:

AUGER DIAMETER	BODY SIDE LENGTH	WIDTH (inches)	HEIGHT (inches)	OVERALL LENGTH (inches)	EMPTY WEIGHT (Lbs.) (No Screen)	CAPACITY (cubic yd.)	RECOMMENDED USE
3"	7.5'	48	37	98	325	2.0	1/2 Ton And Full HD Trucks

MATERIAL WEIGHTS (See OPERATION - Material Limits Section)

MATERIAL	LBS. PER CUBIC YD.	LBS. PER CUBIC FT.
# 1 Rock Salt	950	35
# 2 Rock Salt	1,215	45

NOTE: All references to "Drivers Side (DS)" and "Passenger Side (PS)" relates to equipment as viewed from the rear or discharge end of the spreader, and facing the normal direction of vehicle travel.

ABBREVIATION KEY					
AR	As Required	ELEC	Electric	SS	Stainless Steel
ASSY	Assembly	PDE	Poly Dual Electric	STD	Standard
CB	Carriage Bolt	I.D.	Inside Diameter	ZP	Zinc Plated
CPLG	Coupling	REQ	Required		

SPREADING OPERATION

Spreading Mediums

Categories of Spreading Mediums

Spreading Mediums come in three different categories:

- Free Flowing - These materials generally have a granular size of 1/8 to 1/4 inch, and have no chunks when poured out.
- Chunky Free Flowing - These materials are the same granular size as free flowing, but have chunks or bridging that can range from 1/2 inch in diameter up to 6-12 inches in diameter. These chunks can easily escape visual detection when being poured out of a bag, and give the appearance of free flowing material.
- Bridging / Non Flow - These materials chunk up when poured, or stick together and combine into clumps of break resistant material. They may pour well down the side of the hopper, but when wedged together at the bottom of the hopper, materials will be compacted, clump together and resist breakup. Vibration by vibrators tends to compact the materials even more. A physical "breaker" is required to make this material move.

Usable Spreading Mediums

NOTE: PDE800 is designed to handle free flowing materials.

There are a number of spreading mediums that are usable with your PDE800 Some examples are:

- Free Flowing Salt, Course and Fine - Free Flowing Salt typically comes out of a bag, and is dry and free flowing.
- Treated Salt, Course and Fine - Treated Salt is usually more "sticky", and bridges easily. The PDE 800 requires the vibrator to be turned on for optimum flow with this material. Some treated salts may not even flow through the spreader at all. Be sure to test small batches to determine the flow characteristics of the material you have chosen.
- Calcium Chloride - Calcium Chloride can become "sticky and chunky". The PDE 800 may require the vibrator to be operated for optimum flow with this material.

IMPORTANT: Sand cannot be spread with PDE 800 SPREADER.

NOTE: Due to the different rates at which materials absorb moisture, materials may have different performance characteristics when used in a spreader. The substitution of alternate materials may be necessary for maximized flow and spread patterns.

Operating Capacities

PDE 800 hopper capacity is approximately 2 Cubic Yards.

Use the following table as a guide to calculate the weight of material placed in the spreader:

IMPORTANT: Material weights given are average weights for DRY materials. Depending on moisture content of material, weights will vary. NEVER load the vehicle this Spreader is installed on beyond the vehicle manufacturers maximum Gross Vehicle Weight Rating.

Material	Weight (lbs. Per Cu. Ft.)
Rock Salt Coarse	35
Rock Salt Fine	45

REMEMBER Calcium and Sodium Chloride (Salt) materials are hygroscopic (attract moisture) and will form a solid block when exposed to atmospheric moisture. It is easier to unload unused material and clean out the hopper in a timely manner than chip out a 200 lb hardened salt block later.

INSTALLATION

Mounting the Spreader Onto the Vehicle

NOTE: Refer to the Repair Parts Diagrams, which are in this manual, to help identify parts referenced in the following text.

1. Attach two lift straps through the top grate to the front and rear spreader cross supports (See Figure 1-1).

IMPORTANT: DO NOT attach the lift straps directly to the top grate. Pass the lift straps through the grate and attach them directly to the front and rear cross supports.

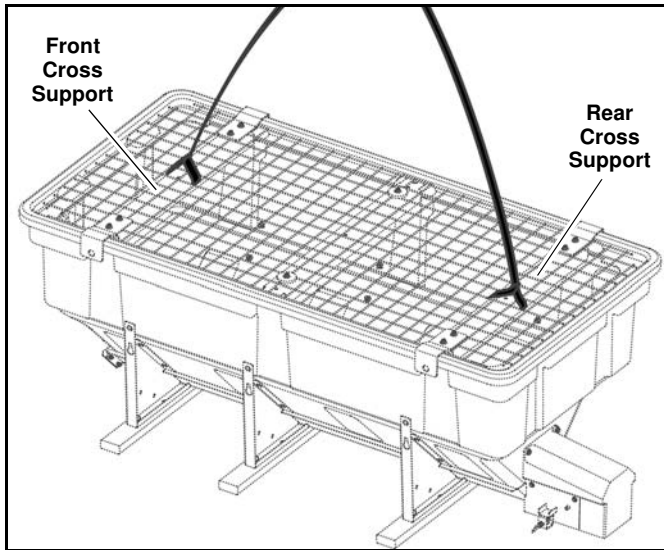


Figure 1-1

2. Remove the tailgate from the truck.

WARNING

Before lifting, check that the hopper is empty of material. The lifting device must be capable of supporting the spreader's weight. See charts for spreader weights.

FAILURE TO HEED CAN RESULT IN INJURY OR DEATH.

3. Attach the free ends of the lift straps to a suitable lifting device and lift the spreader slowly. Maintain the spreader horizontal position as it is lifted. (See Figure 1-2)



Figure 1-2

4. Center the spreader on the vehicle with the rear auger motor housing clear of all vehicle rear obstructions (e.g., bumper, trailer hitch, etc.) (See Figure 1-3).



Figure 1-3

5. Using suitable tie-down straps or chains (See "ACCESSORIES" on page 36), secure the spreader to the vehicles factory installed anchor points using two tie-down brackets on each side of the spreader hopper. (See Figure 1-4)

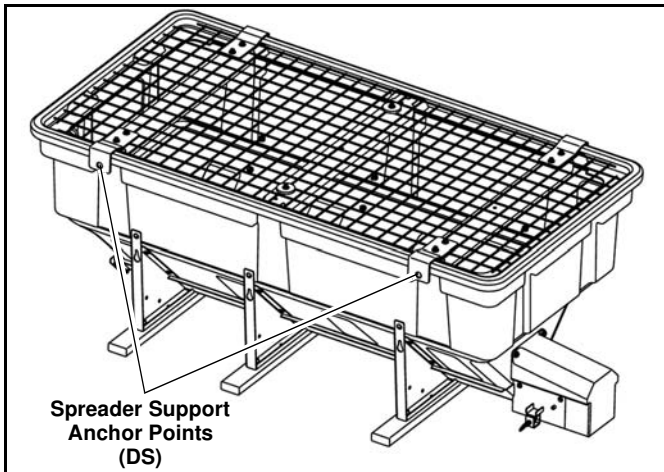


Figure 1-4

IMPORTANT: Check the tie-down devices every time the spreader is placed on the truck and loaded with material to make sure they are secure.

Attach Chute

1. Pull out each auger motor housing latch pin and rotate counter-clockwise to engage detent.

2. Position the chute spinner assembly on the auger housing support pins and push the bottom of the unit forward (See Figure 1-5).

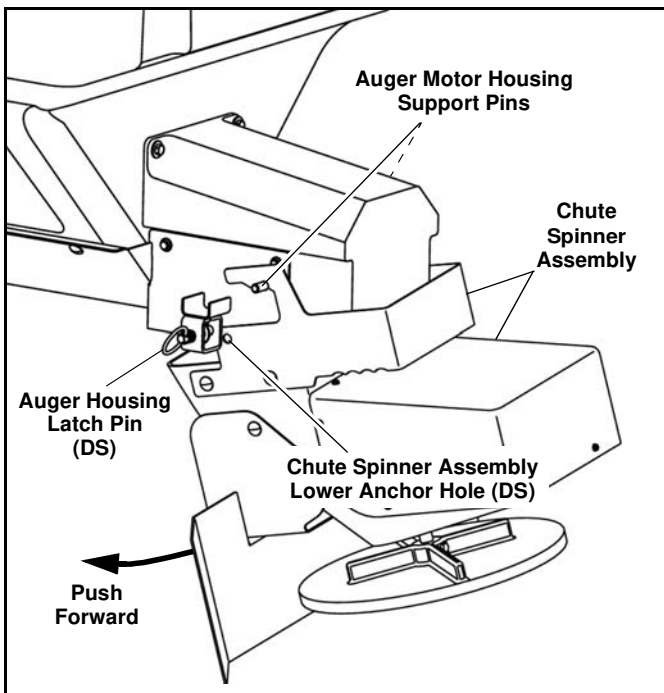


Figure 1-5

3. As the lower anchor holes align with the auger motor housing pins, pull each pin out and rotate clockwise to disengage the detent. Rotate each pin slightly as it engages the lower anchor holes on the chute spinner assembly. (See Figure 1-6).

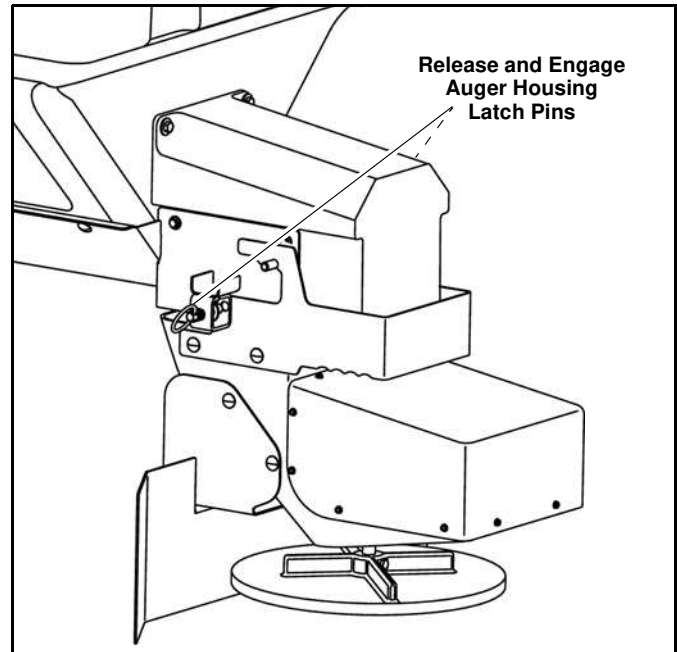


Figure 1-6

4. Plug the spinner wiring harness into the spreader harness on the right side of the auger motor housing.

Dual Variable Speed Control Installation

1. Locate the following parts (See Figure 1-7):

- Controller
- Mounting Bracket
- Wire Harness, Battery
- Wire Harness, Main
- Ignition Wire
- Wire Harness, Battery
- Vibrator Harness
- Auger Harness
- Spinner Extension Harness
- Spinner Harness
- Cable Tie, Plastic
- Grommet
- Cap Cover

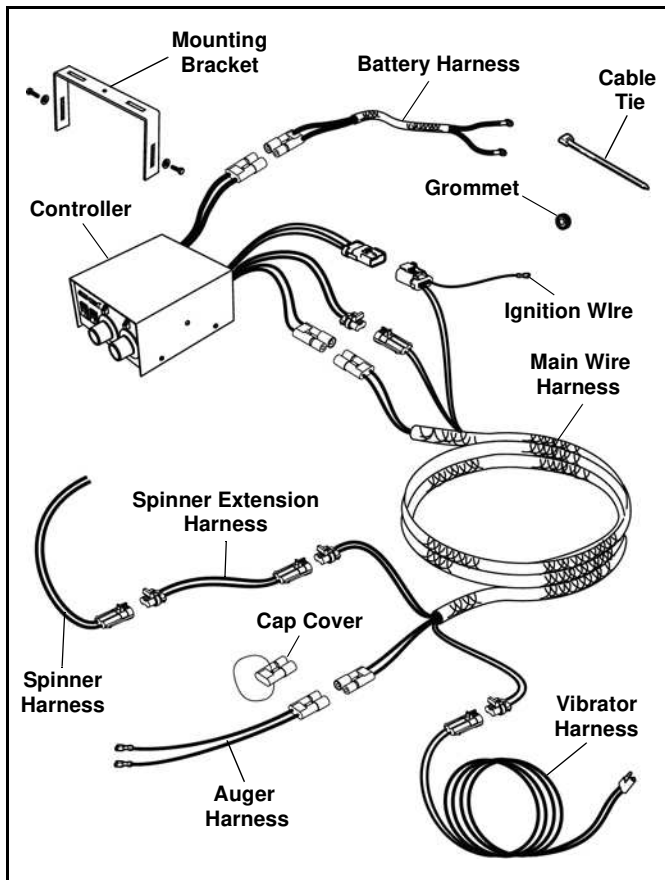


Figure 1-7

(For reference to part numbers, see service parts listing on page 33).

NOTE: Take the extra time needed to plan the routing of the wiring harness before drilling any holes or fastening the harness or control box in place. Read all the instructions carefully to ensure all the required conditions are met for a safe and professional installation (See Figure 1-8).

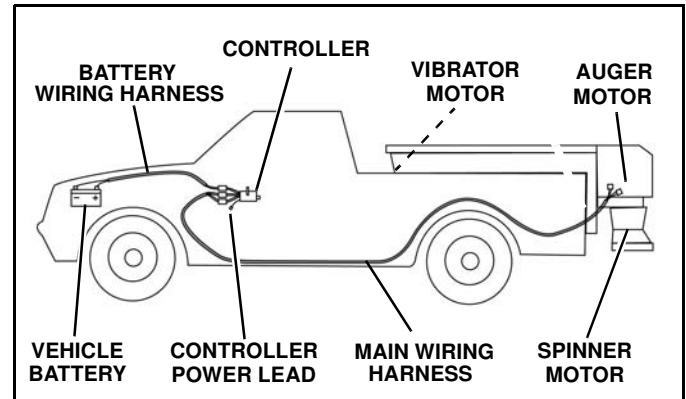


Figure 1-8

2. Look for an existing hole, with rubber grommet, in the vehicle firewall. The hole must be 1" or larger.

CAUTION

DO NOT drill any holes until a thorough visual inspection is performed to determine that the area around the hole to be drilled, on both sides of the firewall, is clear of any obstacles such as brake lines, linkage or vehicle wiring.

3. If an existing 1.0" hole is not available, look for an area to drill a 1.0" hole that satisfies these conditions:

- Hole should be drilled on the same side of the vehicle firewall (left or right) as the vehicle battery.
- **DO NOT** put a hole in such a spot that will force the wiring harness, when installed, to interfere or be routed behind accelerator pedal, brake pedal, clutch pedal, parking brake or associated linkage.
- **DO NOT** drill any holes until a thorough visual inspection is performed to determine that the area around the hole to be drilled, on both sides of the firewall, is clear of any obstacles such as brake lines, linkage or vehicle wiring.

NOTE: If the hole has to be drilled through carpeting or insulation, reverse the direction of the drill until the carpet has been penetrated, remove the carpet from the hole saw then use the forward direction to continue drilling through the firewall, this should prevent "running" in the carpet.

4. Drill a 1.0" hole through the vehicle firewall.
5. Install the grommet into the firewall.

CAUTION

Keep wiring harness away from moving parts, sharp edges and areas of extreme heat to avoid electrical failure and fire.

6. Uncoil the battery wiring harness and route the end of the harness with the short red and black wires (with ring terminals installed) through the grommet and into the engine compartment. Position the red and black wires (with terminals) near the battery.

7. Uncoil the main wiring harness. Route the red ignition switch power lead from the controller connector to the fuse panel location.

8. Route the main wiring harness from the vehicle interior, through the grommet to the rear bumper by the hitch receiver tube. Attach the harness assembly to the vehicle at different points in the cab interior, engine compartment and frame that will not allow the harness to come in contact with sharp edges, hot components and moving parts or mechanisms. Be sure the harness is supported and protected by the vehicle frame.

9. Fasten the main harness to the rear of the vehicle near the bumper. Leave enough slack in the harness so that the harness can be connected to the spreader easily and not be under tension.

10. Connect the main wire harness connectors to the spreader connectors (See Figure 1-9).

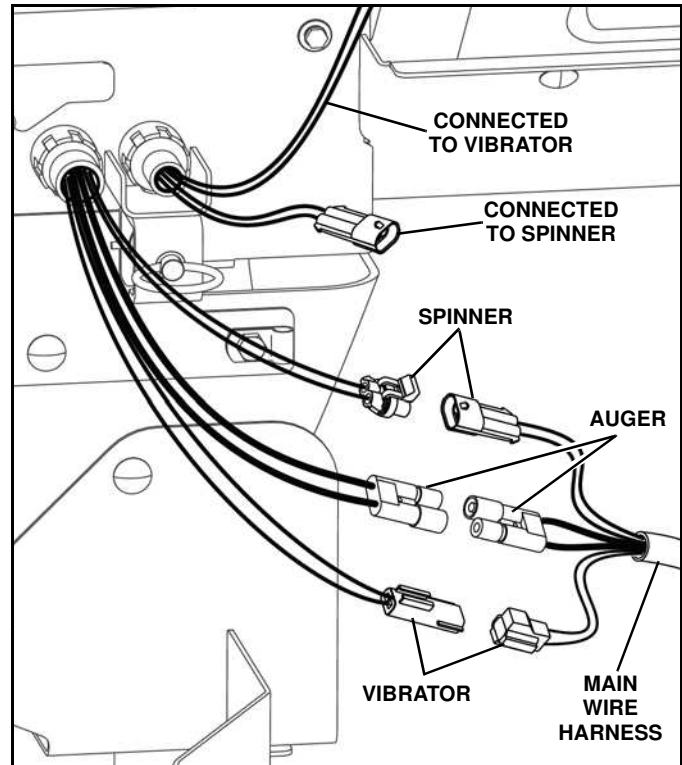


Figure 1-9

WARNING

Mount the control box in an area that will not interfere with the legs during seat travel and that will not allow the knees to come in contact with it in an accident.

FAILURE TO HEED CAN RESULT IN INJURY OR DEATH.

11. Install the controller mounting bracket in the vehicle in a suitable location. Position the controller in the mounting bracket and secure with two flat washers and cap screws.

IMPORTANT

The Dual Control supplied with the PDE800 must be plugged in properly or the control will be permanently damaged. If the power coming from the battery is plugged into the outlet leads of the control, certain components on the board will be visibly burnt out. The controls may function after the battery has been plugged into the outlet for the auger or main drive, however, the unit will cease functioning shortly thereafter.

The auxiliary circuit, shares the same connector as the vibrator circuit. If the vibrator circuit sees power from the battery, the control will be damaged also.

The control is not under warranty when the components on the board are found burnt out. The only way to cause this damage is by back-driving power thru the outlet leads of the control.

12. Connect the battery and main wiring harnesses inside the cab to the appropriate controller connectors (See Figure 1-10).

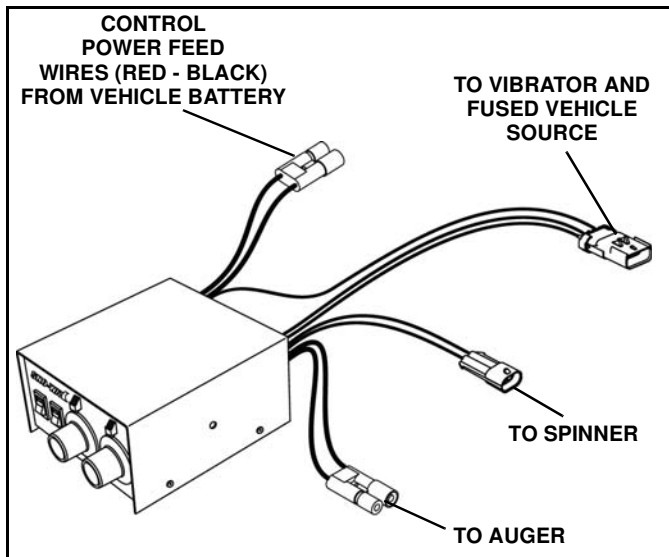


Figure 1-10

13. Using a test probe, determine the fused "Dead/OFF" side of the fuse. Remove the fuse and attach the A.T.O. fuse tap to that side of the fuse. (See Figure 1-11)

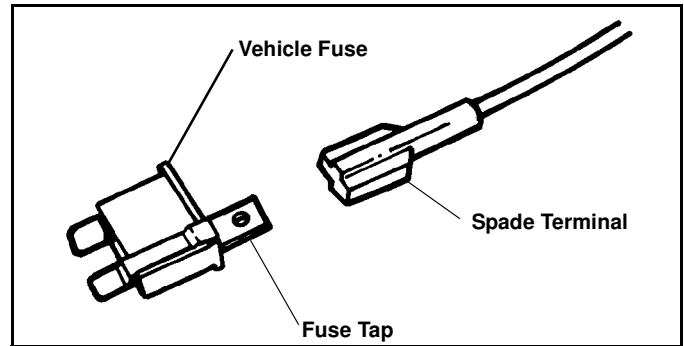


Figure 1-11

NOTE: Two fuse tap-ins are provided, one for standard (ATO/ATC) automotive blade fuses and one for mini-blade automotive fuses. Determine which type of fuse the vehicle uses. If the standard fuse is used, the fuse tap-in will require the provided 1/4" female spade terminal, if the mini-fuse is used, the fuse tap-in will require the provided 3/16" female spade terminal.

IMPORTANT: DO NOT use fuse designated for head lamp, tail lamp, stop lights, panel lights, or other critical fuses.

NOTE: If accessory fuse is not available in the fuse box use another fuse with a 10-15 amp designation, i.e. radio, lighter, etc.

IMPORTANT: The RED wire must be protected by a fuse. If it is not practical to attach this wire to a fused circuit in the vehicle fuse box an inline 10 amp fuse must be added to this wire.

WARNING

Disconnect vehicle NEG. (-) battery cable while performing the following steps to avoid serious bodily injury from fire or explosion.

FAILURE TO HEED CAN RESULT IN INJURY OR DEATH.

14. Ensure that both power switches on the controller are in the OFF position. Connect the single RED controller power lead to the fuse tap-in and reinstall the fuse in the vehicle.

15. Attach the ring terminal of the positive (RED) wire of the battery wiring harness to the vehicle battery POSITIVE (+) post. (See Figure 1-12).

Battery Safety

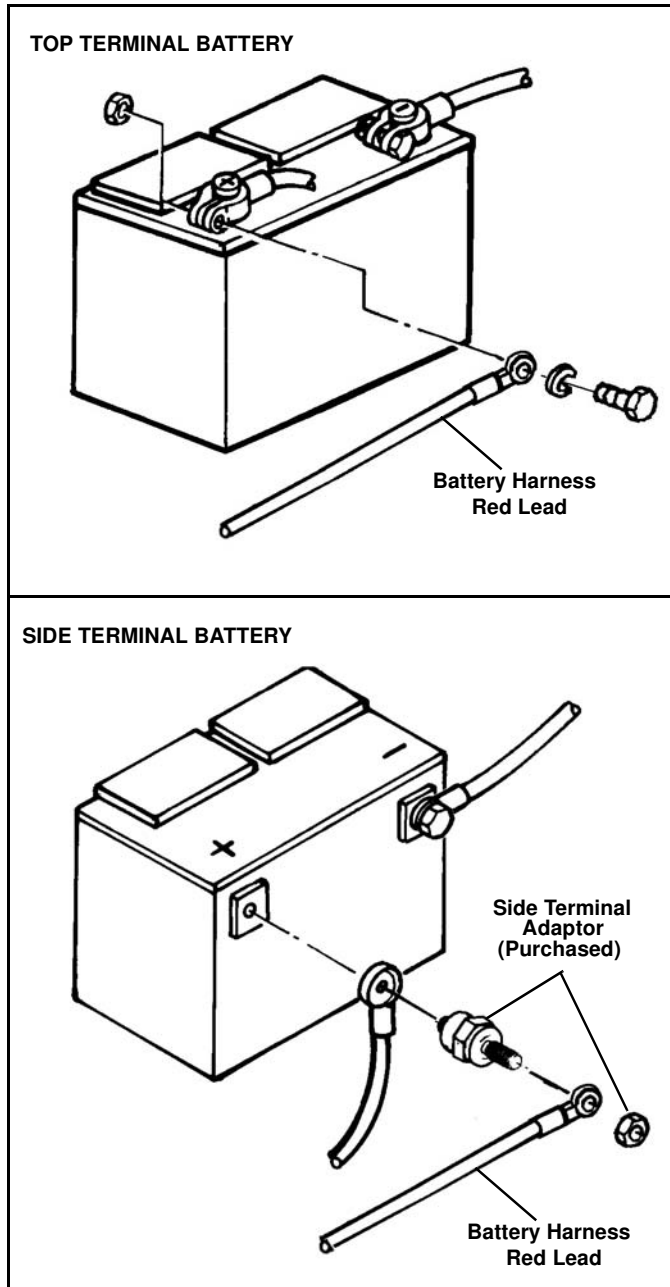


Figure 1-12

NOTE: If the vehicle has a side terminal (side post) battery, it will be necessary to install adaptors (#96100773) to make connections at the vehicle battery.

16. Attach the ring terminal of the positive (RED) wire of the battery wiring harness to the vehicle battery POSITIVE (+) post.

17. Attach the black battery harness negative wire to the vehicle battery NEG (-) post.

WARNING

- Never lay tools or equipment on the battery. You could accidentally ground the POSITIVE (+) battery terminal, resulting in electrical shock, burns or damage to equipment.

- Always disconnect the battery before removing or replacing electrical components such as the starter relay or battery cables.

FAILURE TO HEED CAN RESULT IN INJURY OR DEATH.

OPERATION

Shield Adjustment

The flow pattern of the material is dependent on material type and density. The spreader is designed for free flowing materials that should spread evenly in an arc pattern behind the vehicle.

Bend the internal baffle in the chute housing "Up" or "Down" to adjust the directional flow of material (See Figure 2-1).

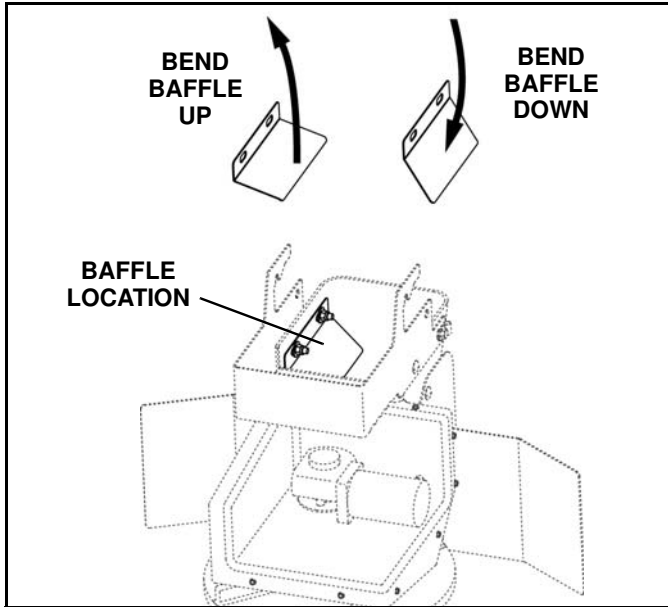


Figure 2-1

• To adjust the flow of the material to the passenger side (PS) of the vehicle, manually bend the internal baffle on the chute assembly in the "UP" position (See Figure 2-2).

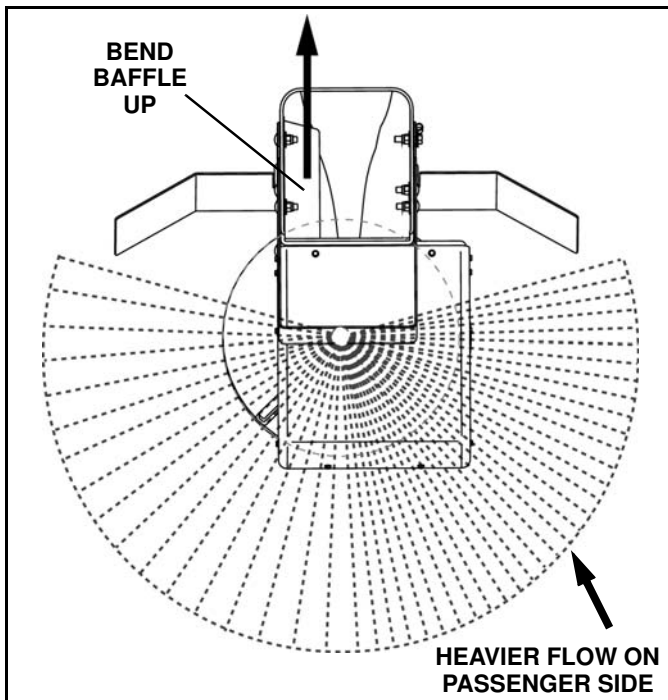


Figure 2-2

• To adjust the flow of the material to the drivers side (DS) of the vehicle, manually bend the internal baffle in the "DOWN" position (See Figure 2-3).

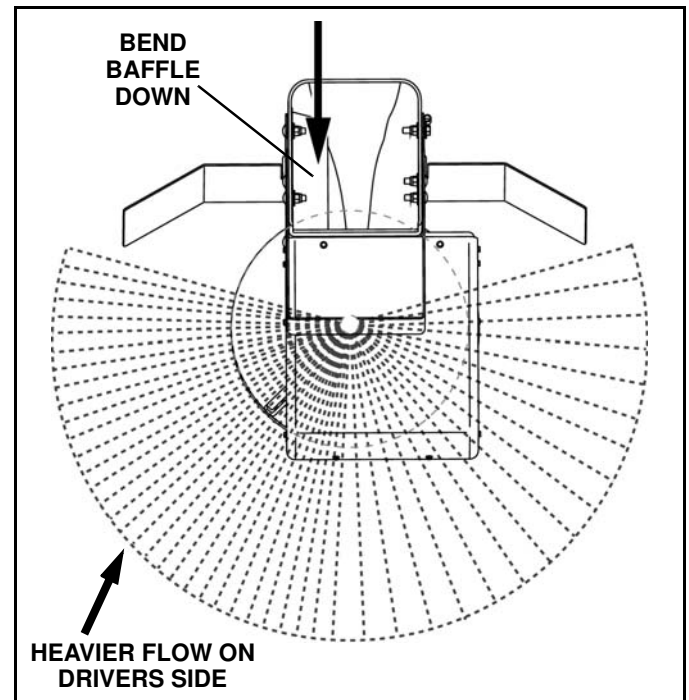


Figure 2-3

Material Limits

Salt mixtures must be dry in order for the unit to dispense properly. If the salt can be clumped into your hand like a snowball, it is more than likely too stiff and flow resistant. Opening the baffles may encourage flow, however the vibrator may require full time operation for the material to flow adequately.

IMPORTANT: Be aware that standard rock salt found in bag form can pack up the auger if the center baffles are opened. The center baffles are designed primarily for stubborn flow resistant materials and should be opened with caution.

The unit as shipped is set for standard rock salt type materials. Be sure to experiment with the materials before completely filling the hopper. It is a lot tougher to dig out a full hopper, than a partially filled hopper.

Inverted-V Baffle Adjustment

The following section discusses how the Inverted-V baffles are adjusted according to the materials that you are using.

There are three different settings for the Inverted-V:

1. Constricted Flow
2. Full Constricted Flow
3. Unrestricted Flow

Constricted Flowing (Standard as Shipped Position)

The unit as set from the factory has all the baffles in the center closed, and the side baffles raised to the top position (See Figure 2-4).

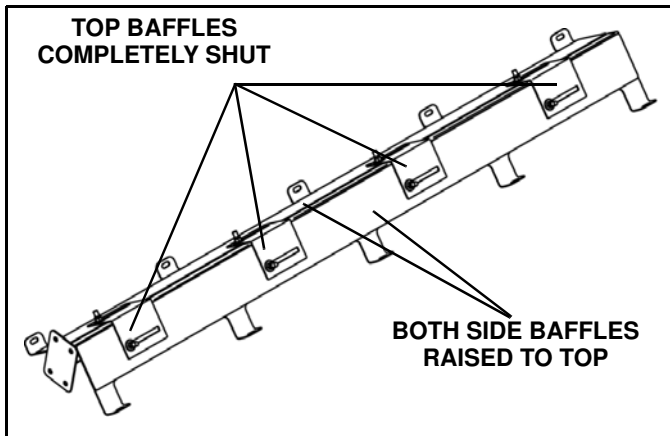


Figure 2-4

Full Constricted Flow Set Up

If the material requires further constriction, the sides of the Inverted-V can be dropped to restrict flow (See Figure 2-5).

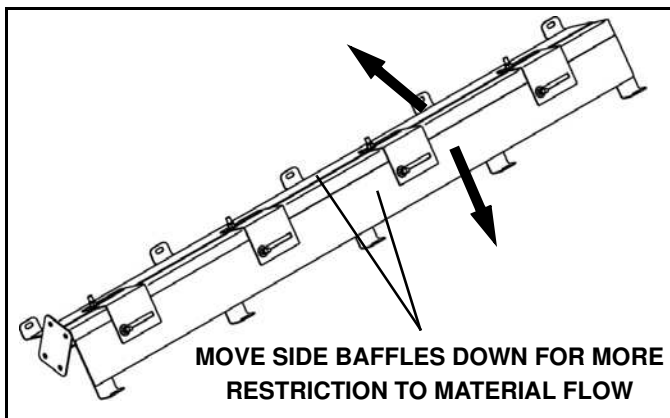


Figure 2-5

Unrestricted Material Flow Set Up

Additional flow may be required to enhance flow of

stubborn materials. The top baffles can be opened unrestricted the flow of material (See Figure 2-6).

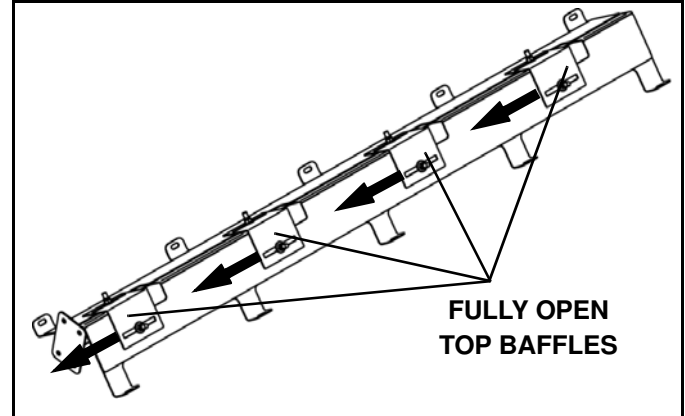


Figure 2-6

1. Gradually open the four top baffles to increase flow only if material used is determined to be very flow resistant.

CAUTION

If top baffles are fully opened, certain materials may cause the auger to jam due to the excessive weight the additional material will have on it.

Auger Jam Release

In the case of auger jam the auger must be freed of material impaction as follows:

- Disconnect the Main Spreader Harness from the controller harness.
- Remove the Spinner Chute Assembly.
- Disconnect the Hopper Restraints.
- Remove the Hopper Screen.
- Dig out the hopper down to the Inverted-V.
- Close the Inverted-V top baffles. (If top baffles are already closed, pull down the side baffles at least 1 inch).

WARNING

Disconnect the spreader main wiring harness from the controller before the installation and use of the auger relief tool.

FAILURE TO HEED CAN RESULT IN INJURY OR DEATH.

Auger Relief Tool (Optional)

NOTE: The Auger Relief Tool is an optional accessory that is designed to free up a jammed auger (See "ACCESSORIES" on page 36).

Install the 96115106 relief tool cross bolt in the auger shaft at the front of the spreader, and secure with the provided locknut.

Insert the relief tool into the auger shaft and engage it into the cross bolt (See Figure 2-7).

Using the relief tool with a 3/4" socket or hand wrench, manually turn the auger counter-clockwise (CCW). The auger should spin freely with the tool.

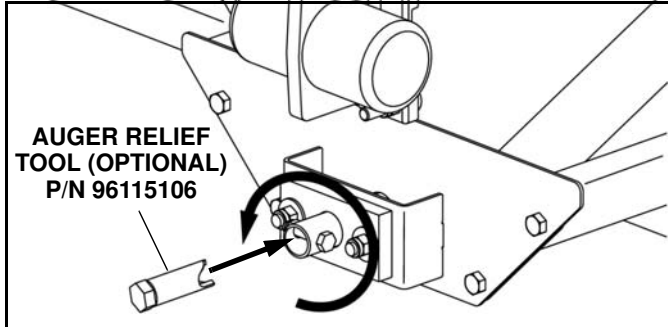


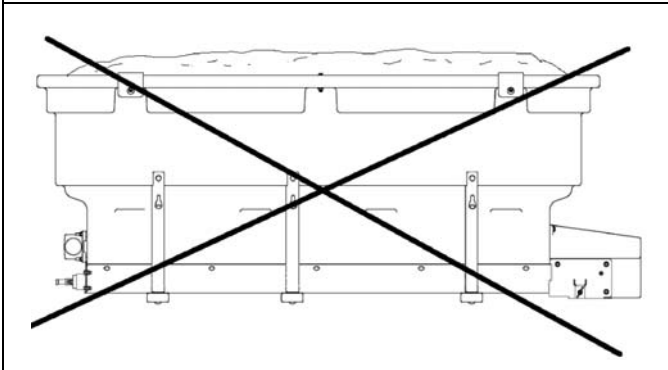
Figure 2-7

NOTE: The relief tool cross bolt and nut can remain installed in the auger shaft, but the relief tool should be removed from the shaft after use, and stored for reuse if required.

- Once any auger jam is relieved, proceed to reassemble the screen and support brackets.
- Install Hopper Restraints.
- Put Spinner Assembly back onto the spreader.
- Reconnect Harness.
- Resume Spreading materials.

WARNING

Do not try to move a hopper full or even partially full of material. The unit is not designed to be picked up or moved with material in it. Injury or even death could occur with such a maneuver. The hopper must be emptied prior to moving the unit.



Dual Variable Control Operation

CAUTION

The controller input voltage must be a minimum of 11 volts DC for proper operation. Be sure the vehicle battery and alternator are in good operating condition and adequate to provide 11 volts DC to the salt spreader controller.

The following controls and indicators are located on the face of the controller (See Figure 2-8):

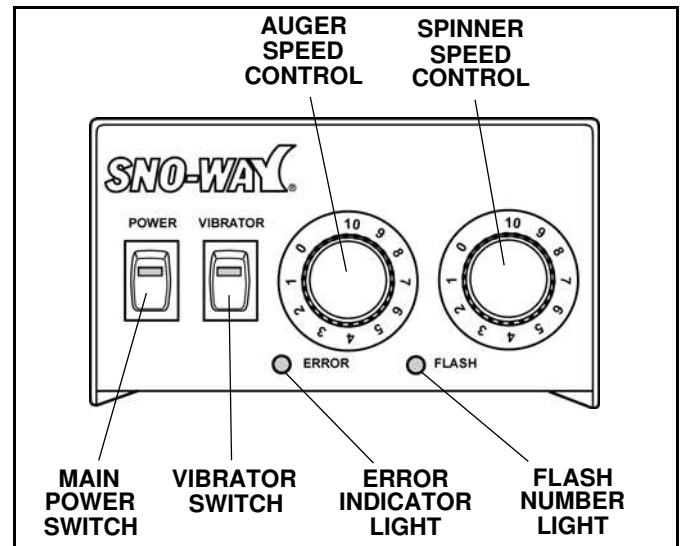


Figure 2-8

- Illuminated Main Power Rocker Switch — Used to start or stop spinner, auger and vibrator motors.
- Illuminated Vibrator Motor Rocker Switch — Used to start or stop the vibrator motor.
- Spinner Speed Control with Indicator Light — The dial is used to adjust the speed of the spinner.
- Auger Speed Control with Indicator Light — The dial is used to adjust the speed of the auger.
- Error Indicator Light — Refer to error chart.
- Flash Number — The number of flashes indicate the error code that the controller is experiencing. Count the number of flashes, then refer to the error chart.

NOTE: The Spreader Control will only operate when the ignition switch is turned on.

IMPORTANT: The controller uses natural air circulation to cool down. If the control is not out in the open, it will not be able to cool. The control, if over-heated, will shut down for a period of 2 to 5 minutes.

The motor controller controls the speed of the spinner and conveyor drive motors by supplying a variable voltage and current to the motors, as determined by their respective speed control settings.

Current is supplied by a control power lead (RED wire) from the vehicle fuse block and must be protected by a fuse no greater than 15 amps. This control power lead must also be connected to the fuse block so that the controller receives current **ONLY** when the vehicle ignition is in the ACC position or RUN position. (See "Dual Variable Speed Control Installation" on page 8.)

The spinner and conveyor drive motors are protected by internal circuit breakers in the controller.

Start

The POWER switch on the front of the controller is an illuminating rocker switch. When the ON side of the switch is depressed, current will be directed to the auger and spinner drive motors and the indicator light behind the rocker switch will illuminate to indicate that power is ON.

Adjust the speed of the auger and spinner motors as desired.

Ignition Switch Shutoff Procedures:

If the vehicle ignition switch is turned OFF while the spreader control power switch is in the ON position, the spinner and conveyor drive will shut off. When the vehicle ignition switch is then turned ON, the spreader control power switch must be manually depressed to the ON position to restart the spinner drive.

MOTOR DUTY CYCLE:

Motors are not continuous duty cycle motors. If a motor becomes hot to the touch, the motor is approaching heat limits. Be sure to allow adequate cooling of motor before using the spreader again.

Vibrator Operation:

The vibrator is intended to free-up materials that are difficult to flow. In conjunction with baffle adjustment on the inverted V, continuous use of the vibrator indicates that the material is difficult to flow.

WARNING

Make sure that the vehicle ignition switch is in the OFF position and key removed from the switch before inspecting the Spreader for cause of obstruction.

FAILURE TO HEED CAN RESULT IN INJURY OR DEATH.

If either drive motor stalls, press the OFF side of the ON/OFF switch to shut off the power to the drive motors. Turn off the vehicle ignition and remove the key from the ignition switch. Inspect the hopper and the spinner drives to determine the cause of the obstruction.

Correct the problem and test to make sure everything is clear, then restart the drive motors.

MAINTENANCE

General

- Use Quaker State NYK-77 dielectric grease, PN3329 or an equivalent grease, on all electrical connections at the beginning and end of each season, and as required during the season.

The auger main bearing is maintenance free, but does require periodic inspection. Be sure to check to see if the auger when running is rubbing on the bottom of the auger trough.

- Inspect auger for erratic rotation which may indicate that the auger is bent.
- Check the vibrator operation.
- Inspect the electrical connections and be sure to apply dielectric grease to them to prevent corrosion during both operation and storage.
- Empty the spreader when it is not in use to prevent the auger from becoming frozen.
- Wash out the spreader when it is not in use.

Controller Error Codes

The "Smart" Dual Control supplied with the PDE800 is designed to alert of potential electrical and loading problems that are often encountered.

The controls have a list of seven (7) different error flash codes ranging from open circuit, direct short to over load conditions. As the numbers progress the severity of the fault increases and requires immediate attention.

The controller internal diagnostics will turn an ERROR INDICATOR LIGHT on and flash a sequence of lights on the FLASH NUMBER LIGHT when a fault is detected in the system (See Figure 2-9).

Record the number of flashes on the FLASH NUMBER LIGHT, then refer to the Error Code Chart to determine the problem and suggested resolution.

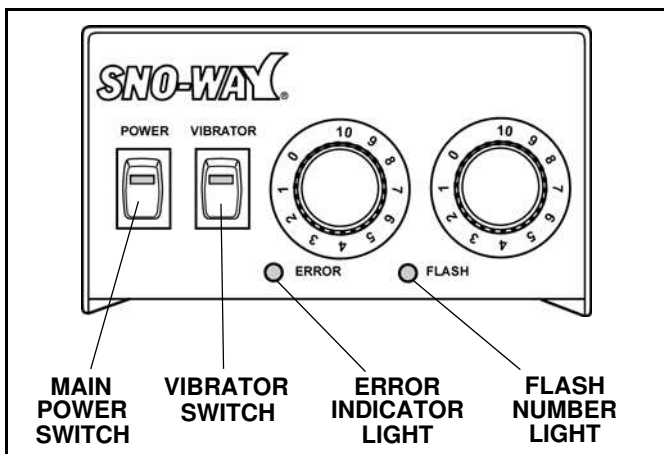


Figure 2-9

If the unit exhibits a "4", "5" or "7" flash code (see chart on following page), the unit must be "**Hard Started**." The reason for this is that something is at fault with the spreader, or the loading of the spreader and must be addressed.

For example a number "5" flash code means an overload condition. When the loading of the spreader exceeds design limits, the control will go into an overload algorithm to try to free up the jam. It will do this 3 to 4 times and then error flash code will show, but the control will no longer run the spreader. The lights will still be "ON", however, the control will not function. The unit must be relieved of high load conditions, or the #5 code will persist.

When the load condition is relieved, the controller must be "**Hard Started**" to clear the error code in the units memory. To "**Hard Start**" the control the main ignition must be turned "OFF" then "ON". This is designed this way for safety reasons, so that when someone is servicing the spreader, the control is not supplying power to the spreader.

A jam is a pretty serious condition, and is dependent on a large amount of variables. Here are just a few:

- Flow Gate Restriction
- Inverted V-Height
- Inverted V-Baffle Adjustment
- Salt Conditions (Free flowing, Stiff and Frozen)
- Salt left in spreader overnight
- Obstructions
- Extreme Cold
- Jammed Spinner

The controller is designed to trip and show a "5" flash code, if the auger-conveyor drive, or the spinner drive are in an overloaded state. If the overload condition is not addressed the control will continue to give a "5" flash code until the overload state is addressed.

Controller Error Code Chart

ERROR INDICATOR LIGHT	FLASH NUMBER LIGHT	PROBLEM	RESOLUTION	TO CLEAR FLASH CODE
OFF	OFF	No Problems. No Errors.	Normal state of controller	NA
ON	OFF	Motor Overload	An electrical overload has occurred in either the AUGER or SPINNER motor. The controller is attempting to eliminate the jam the appropriate motor and will turn off the ERROR LED if successful.	The code will clear itself if the jam is cleared, however, it will go to "5" flash if the unit could not release the jam.
ON	1 Flash	Low Battery Voltage	The controller input voltage has been measured at less than 10 volts. Check the controller input connection and the vehicle battery voltage.	Check the main truck battery for proper voltage, or proper connections.
ON	2 Flashes	Blown Fuse	One of the internal controller fuses has failed after power was applied. If the AUGER dial light is off, replace the AUGER fuse. If the SPINNER dial light is off, replace the SPINNER fuse. If, when the VIBRATOR switch is turned on, the VIBRATOR switch LED is off, replace the VIBRATOR fuse.	Replace blown fuse inside control; Check circuit for overload conditions.
ON	3 Flashes	Disconnected Motor	Either the AUGER, SPINNER or VIBRATOR motor was disconnected from the controller when power was first applied. Check the cable harness or motors for disconnection.	Connect motor to harness; Apply Vibrator Light (when no vibrator light is available).
ON	4 Flashes	Overloaded Spinner Motor	The SPINNER motor is continuously drawing greater than 30 Amps of current, and controller cannot free the jam using 50 Amps of current. Turn off the controller and physically check that the SPINNER motor is not jammed.	Clear Jam, " Hard Start " control.
ON	5 Flashes	Overloaded Auger Motor	The AUGER motor is continuously drawing greater than 52 Amps of current, and controller cannot free the jam using the AUTO-REVERSE feature and 70 Amps of current. Turn off the controller and physically check that the AUGER motor is not jammed.	Clear Jam, " Hard Start " control.
ON	6 Flashes	External Short Circuit To Ground	After power was first applied to the controller, a short circuit to ground was detected in one of the 12VDC wires leaving the controller. The short is either in the AUGER WHITE 12VDC wire to ground or the GREEN SPINNER GREEN 12VDC wire to ground. Turn off the controller. Disconnect the controller from the motor cable harness then turn the controller on again. If the ERROR clears, the short is in the cable harness. If the ERROR does not clear, the controller is at fault and needs to be replaced.	Control will not operate until short has been located. Look for faulty wiring harness. Check wiring harnesses for fraying, especially in the firewall interface.

ERROR INDICATOR LIGHT	FLASH NUMBER LIGHT	PROBLEM	RESOLUTION	TO CLEAR FLASH CODE
ON	7 Flashes	Missing Battery Voltage	The controller input voltage on the RED 10 AWG wire has been measured at less than 5 volts after power was first applied to the controller. Check the controller input connection for low voltage or for a poor power connection. The controller does require a minimum of 8 VDC to operate.	Check wiring between the control and the ignition circuit. Make sure adequate connections are made. "Hard Start" control to clear code.

Metri-Pack™ Connector Repair

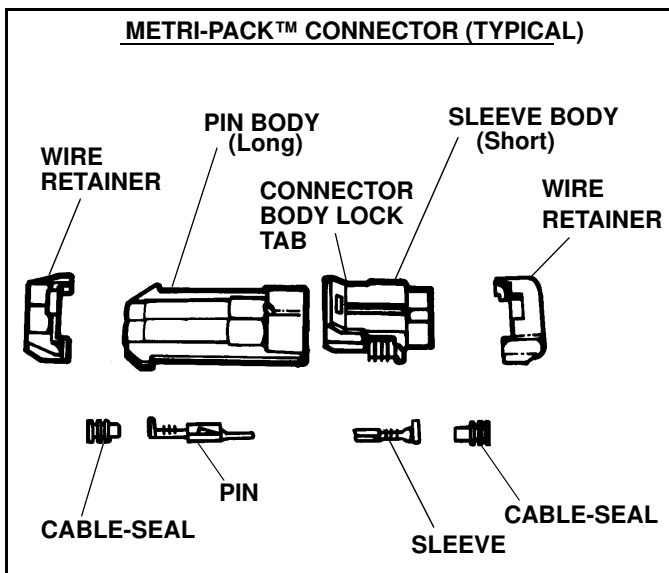


Figure 3-1

IMPORTANT: Identify wire number/color locations with connector terminal letters before disassembly.

Terminal Removal

1. Lift connector body lock tab and pull to separate connector halves.
2. Remove wire retainer on sleeve body or pin body, as necessary, with a screwdriver and save for re-use (See Figure 3-2).

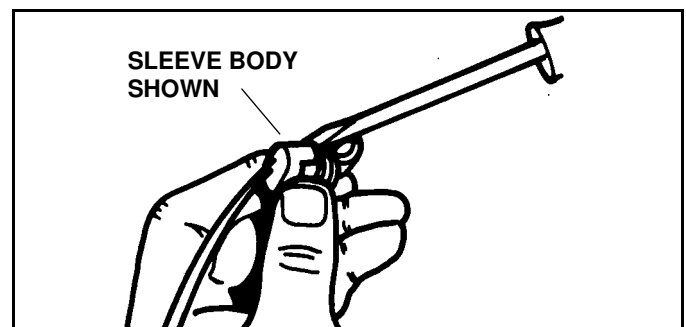


Figure 3-2

3. Push wire into connector as far as possible to release pressure on terminal locking tang.

4. Locate the terminal lock tang in the connector cavity by looking into the connector from the mating end. Use Terminal Removal Tool (#96102499) to depress the lock tang and gently pull wire to remove wire and terminal from connector body. (See Figure 3-3).

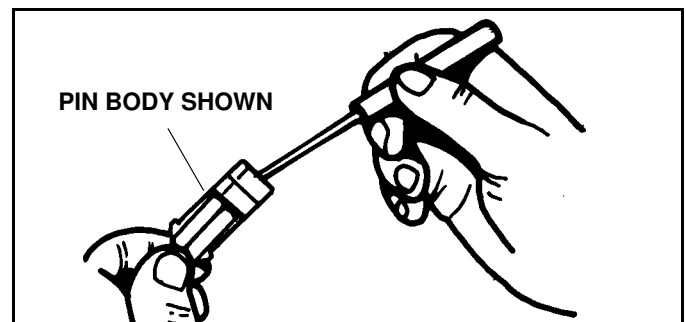


Figure 3-3

Terminal Replacement

1. Cut wire as close as possible to old terminal and remove old cable seal. (See Figure 3-4).

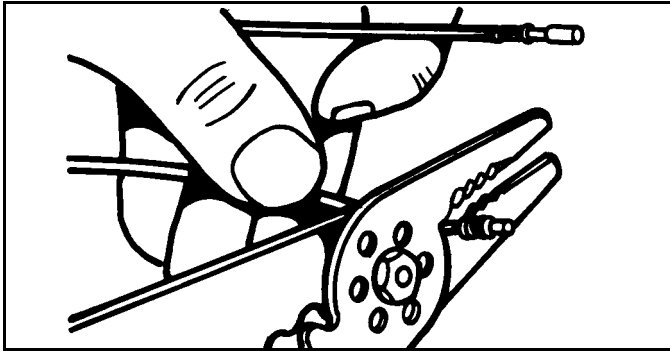


Figure 3-4

IMPORTANT: METRI PACK™ connectors are keyed A, B, C, etc. for proper contact mating. Be sure contacts and wire colors/numbers match and are in proper alignment.

2. Install new correct size cable seal on wire.

Cable seals are available for three sizes of wire:

- Large - 1.0 mm (16 gauge) wire
- Medium - 0.8 mm (18 gauge) wire
- Small - 0.5 mm (20 gauge) wire

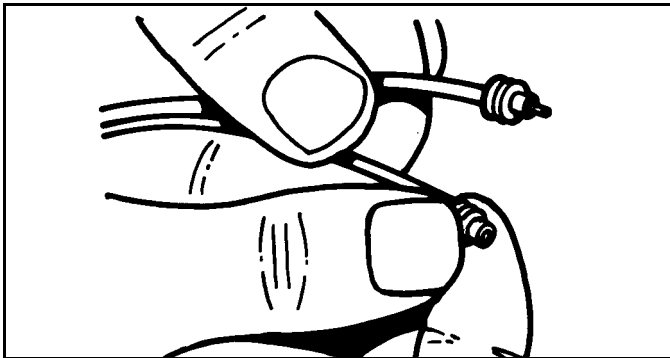


Figure 3-5

3. Strip insulation from wire to expose 6mm (1/4 in) and align cable seal with edge of insulation.

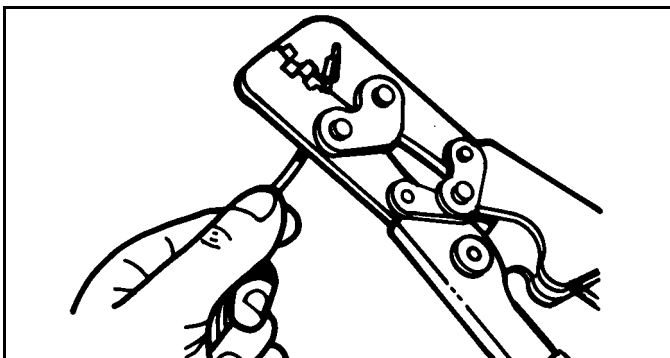


Figure 3-6

4. Place appropriate terminal on wire and use Crimper (#96102500) to secure contact in place with a "W" type crimp.

5. Use Crimper to secure cable seal to terminal.

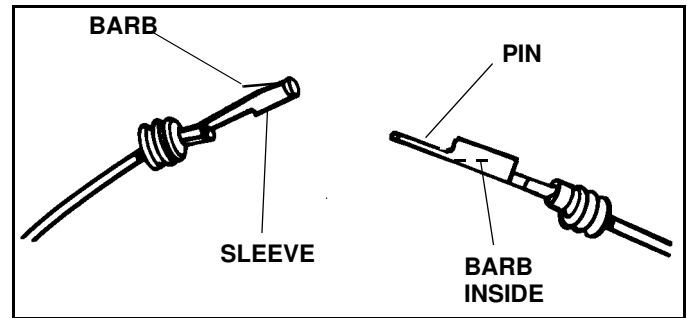


Figure 3-7

IMPORTANT: Proper barb location and orientation for installation of sleeve and pin is shown.

NOTE: Connector bodies are keyed for proper terminal mating. Be sure terminals are in proper alignment.

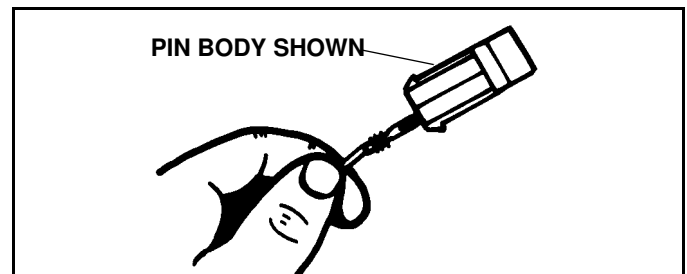


Figure 3-8

6. Push new terminal into connector body until fully seated.

7. Pull on wire slightly to be certain terminal is locked in place.

8. Install wire retainer.

9. Repeat as necessary to replace other terminals.

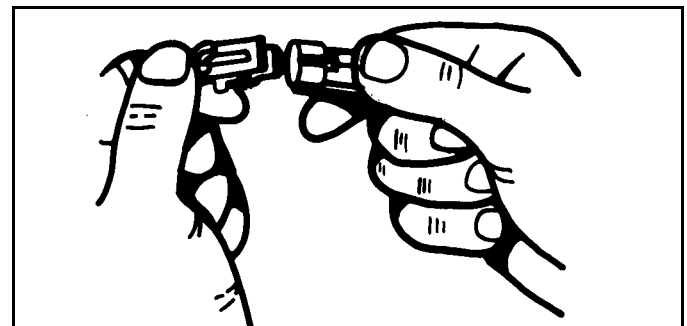










Figure 3-9

10. Close connector body.

TORQUE SPECIFICATIONS

SAE Grade and Head Markings	1 or 2 No Marks 	5 5.1 5.2 	8 8.2 
SAE Grade and Nut Markings	2 No Marks 	5  	8  

	Grade 1		Grade 2		Grade 5, 5.1 or 5.2		Grade 8 or 8.2	
	Lubricated ^a	Dry ^b	Lubricated ^a	Dry ^b	Lubricated ^a	Dry ^b	Lubricated ^a	Dry ^b
SIZE	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft
10-24			21*	27*	32*	43*	45*	60*
1/4	2.8	3.5	4.5	5.5	7	9	10	12.5
5/16	5.5	7	9	11	15	18	21	26
3/8	10	13	16	20	26	33	36	46
7/16	16	20	26	32	41	52	58	75
1/2	25	31	39	50	63	80	90	115
9/16	36	45	56	70	90	115	130	160
5/8	50	62	78	100	125	160	160	225
	Metric Grade 8.8							
SIZE	lb-ft		SIZE	lb-ft				
M6	7		M12	60				
M8	17		M14	95				

DO NOT use these values if a different torque value or tightening procedure is given for a specific application.

Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

^a "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings.

^b "Dry" means plain or zinc plated without any lubrication

* Values with asterisk are in lb-in.

NOTES

PARTS LIST INTRODUCTION

Our dealership network stands by to provide you with any assistance you may require, including genuine Sno-Way service parts. All parts should be obtained from or ordered through your dealer. Give complete information about the part as well as the Model Number and Serial Number of your machine.

Record the Serial Number in the space provided in your Owner's Manual for quick reference. The Serial Number for the unit is on a plate located on the left frame gusset of the Hopper Frame.

"Right" and "Left" are determined from a position sitting on the Operators Seat of the vehicle.

We reserve the right to make changes or improvements in the design or construction of any part without incurring the obligation to install such changes in any unit previously delivered.

USING THIS PARTS LIST

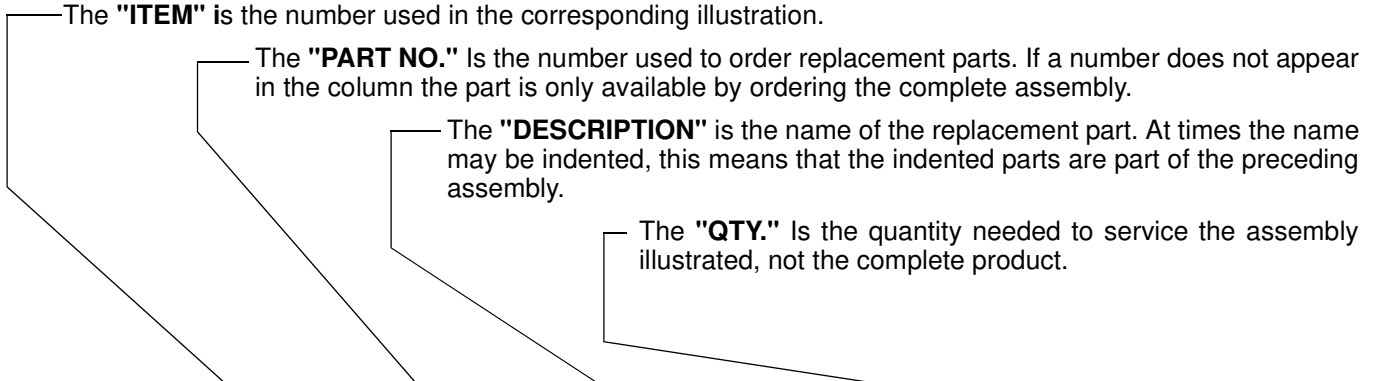
Below is parts listing with four columns. The first column is the "ITEM", the second is the "PART NUMBER", The third is the "DESCRIPTION" and the fourth is the "QUANTITY".

The **"ITEM"** is the number used in the corresponding illustration.

The **"PART NO."** Is the number used to order replacement parts. If a number does not appear in the column the part is only available by ordering the complete assembly.

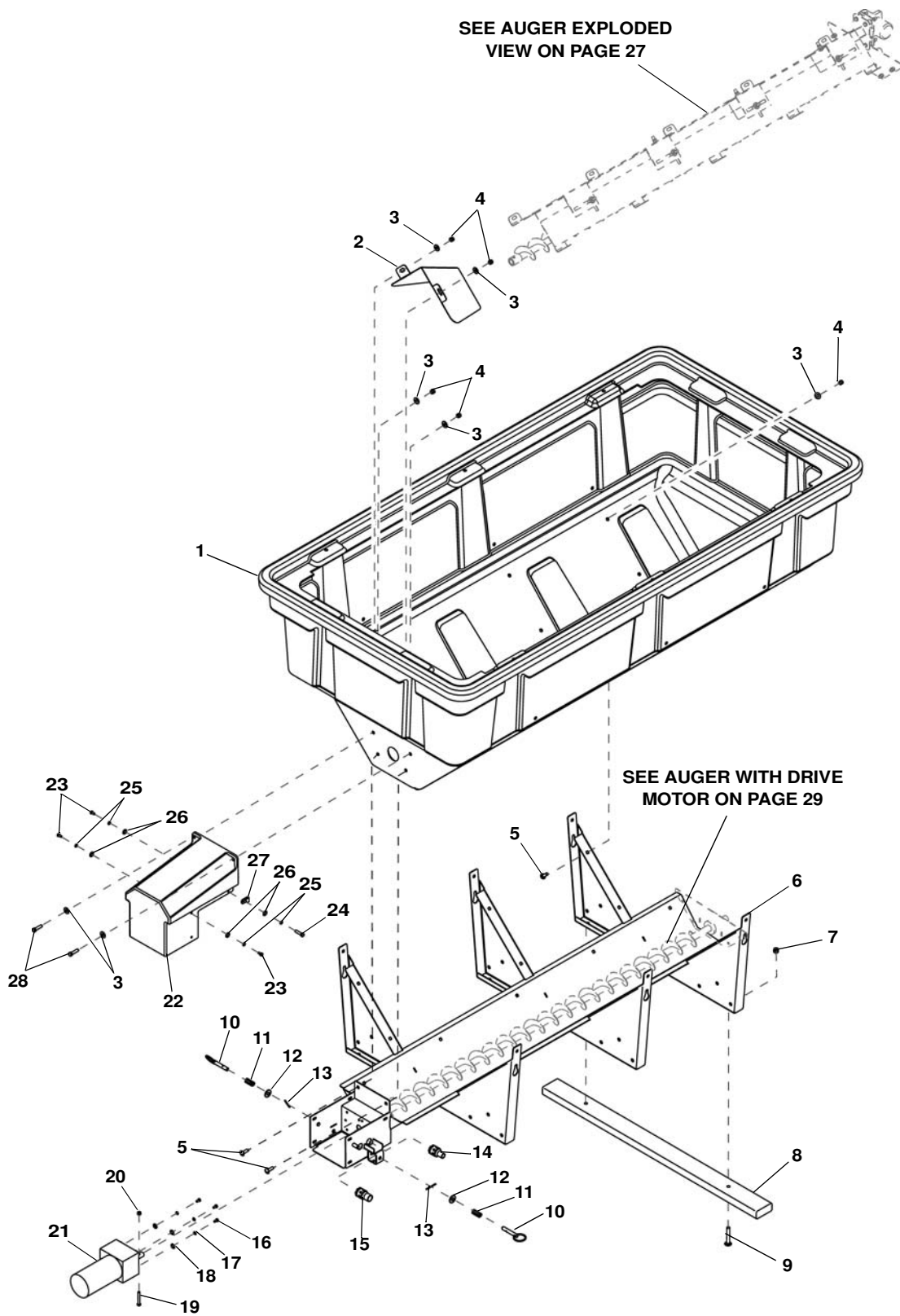
The **"DESCRIPTION"** is the name of the replacement part. At times the name may be indented, this means that the indented parts are part of the preceding assembly.

The **"QTY."** Is the quantity needed to service the assembly illustrated, not the complete product.



ITEM	PART NO.	DESCRIPTION	QTY.
1	96100083	O-ring	1
2	96001529	Elbow	3
3	98100036	Capscrew, Hex., 3/8"-16NC x 7/8"	9

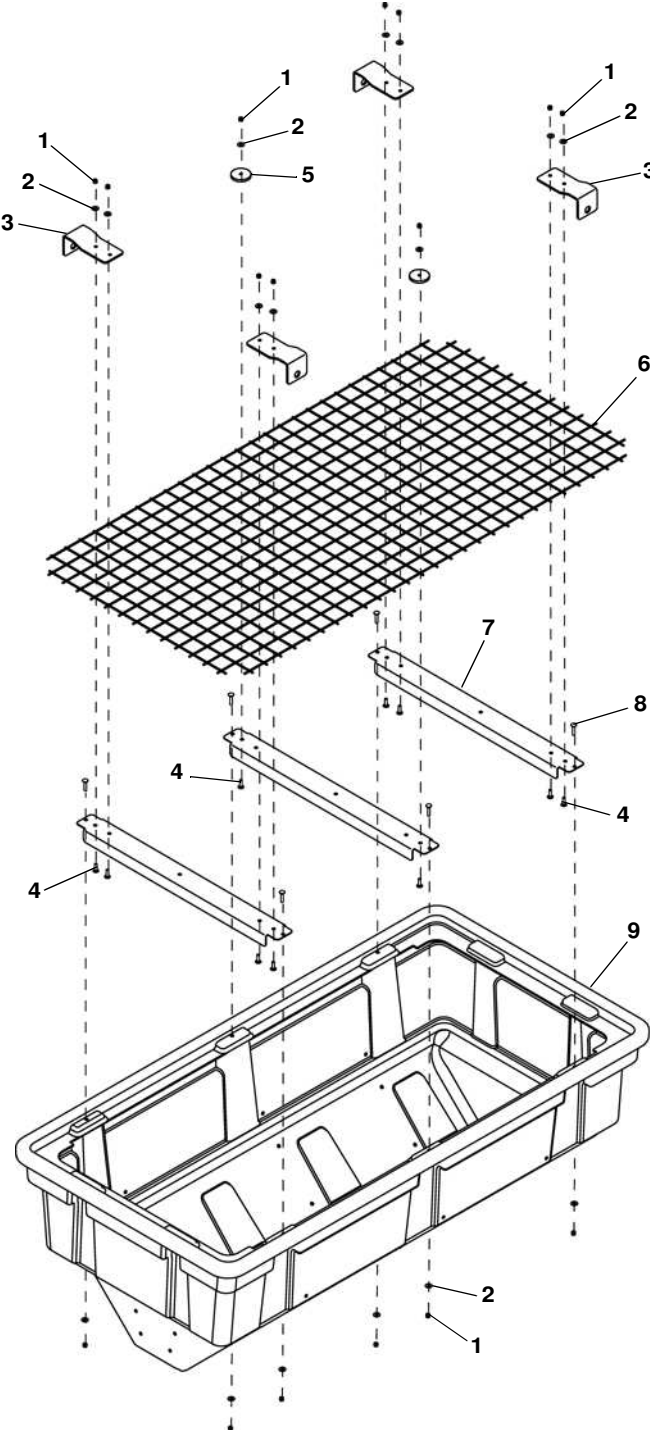
HOPPER



HOPPER

ITEM	PART NO.	DESCRIPTION	QTY
1	96114560	Hopper, PDE800	1
2	96114980	Baffle, Angle	1
3	98100124	PW, 3/8", SS.....	24
4	98100339	LN, 3/8"-16, SS	22
5	98100356	CB, 3/8"-16 x 1.25"	20
6	96114556	Weldment, Auger Support.....	1
7	98009076	Nut, 1/2"-13	6
8	97101824	Board, Shipping/Transport	3
9	98100330	CB, 1/2"-13 x 2-1/2".....	6
10	96114589	Latch Pin, Chute.....	2
11	96114858	Spring, Latch Pin	2
12	98100347	PW, 1.25" O.D. x 0.531" I.D. x 5/8"	2
13	98100535	Spring Pin, 5/32" x 2".....	2
14	96114958	Strain Relief, Small.....	1
15	96114957	Strain Relief, Large.....	1
16	98100344	HHCS, 1/4"-20 x 1/2", SS.....	3
17	98009226	LW, 1/4", SS	3
18	98100122	PW, 1/4", SS.....	3
19	98100114	HHCS, 5/16"-18 x 2.25".....	1
20	98100118	LN, 5/16"-18, SS	1
21	96114805	Motor, Auger Drive	1
22	96114572	Cover, Auger Drive.....	1
23	98100344	HHCS, 1/4"-20 x 1/2", SS.....	3
24	98100334	HHCS, 1/4"-20 x 3/4", SS.....	1
25	98009226	LW, 1/4", SS	4
26	98100122	PW, 1/4", SS.....	4
27	96102428	Clamp	1
28	98100213	HHCS, 3/8"-16 x 1.5", SS.....	2

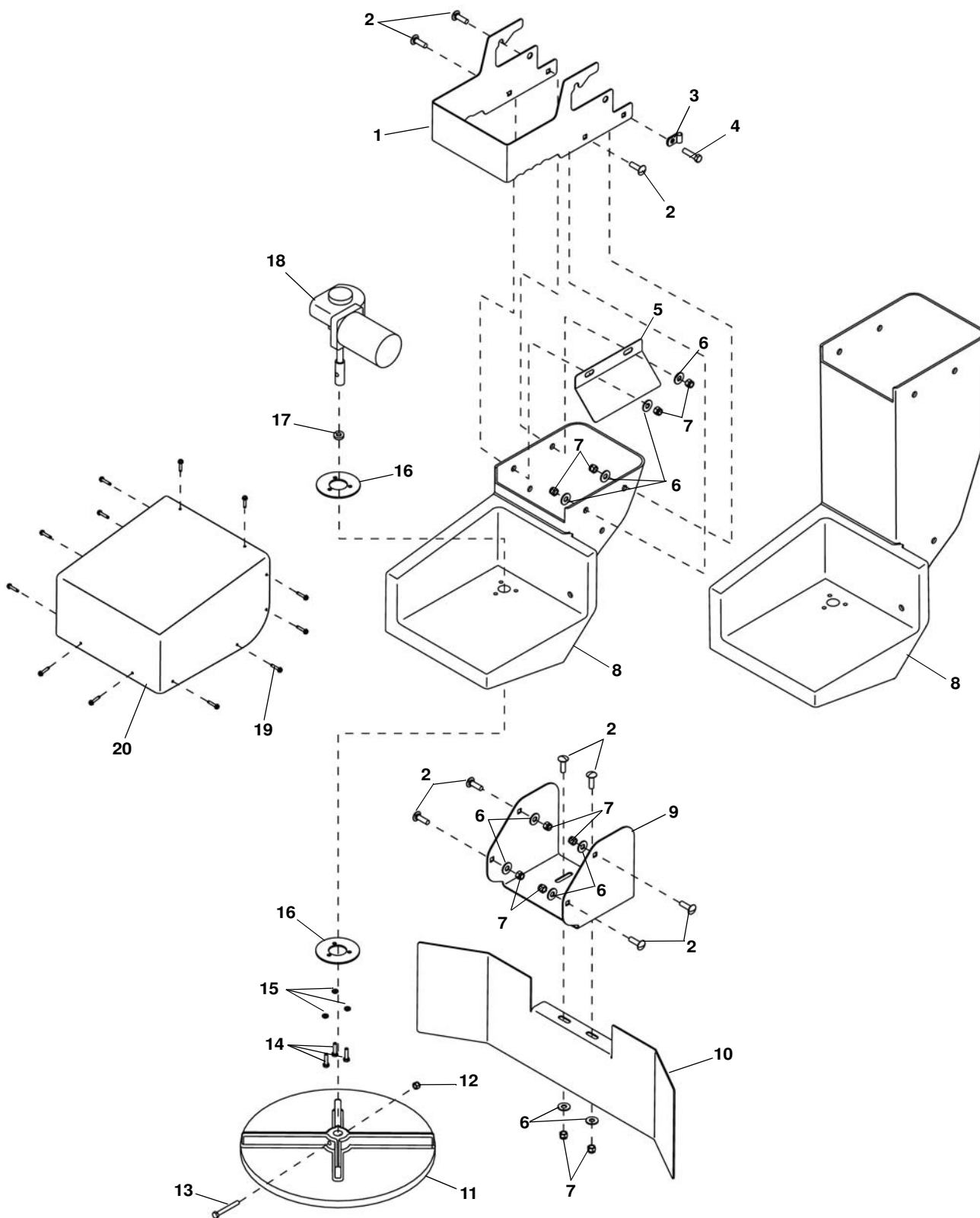
HOPPER SCREEN



HOPPER SCREEN

ITEM	PART NO.	DESCRIPTION	QTY
1	98100339	LN, 3/8"-16, SS	16
2	98100124	PW, 3/8", SS.....	16
3	96114502	Bracket, Strap.....	4
4	98100356	CB, 3/8"-16 x 1.25", SS.....	14
5	96115013	Isolator, Screen	2
6	96114586	Grate, Top Screen, PDE800.....	1
7	96114587	Grate Support, PDE800	3
8	98100536	CB, 3/8"-16 x 1.75", SS.....	6
9	96114560	Hopper, PDE800	1

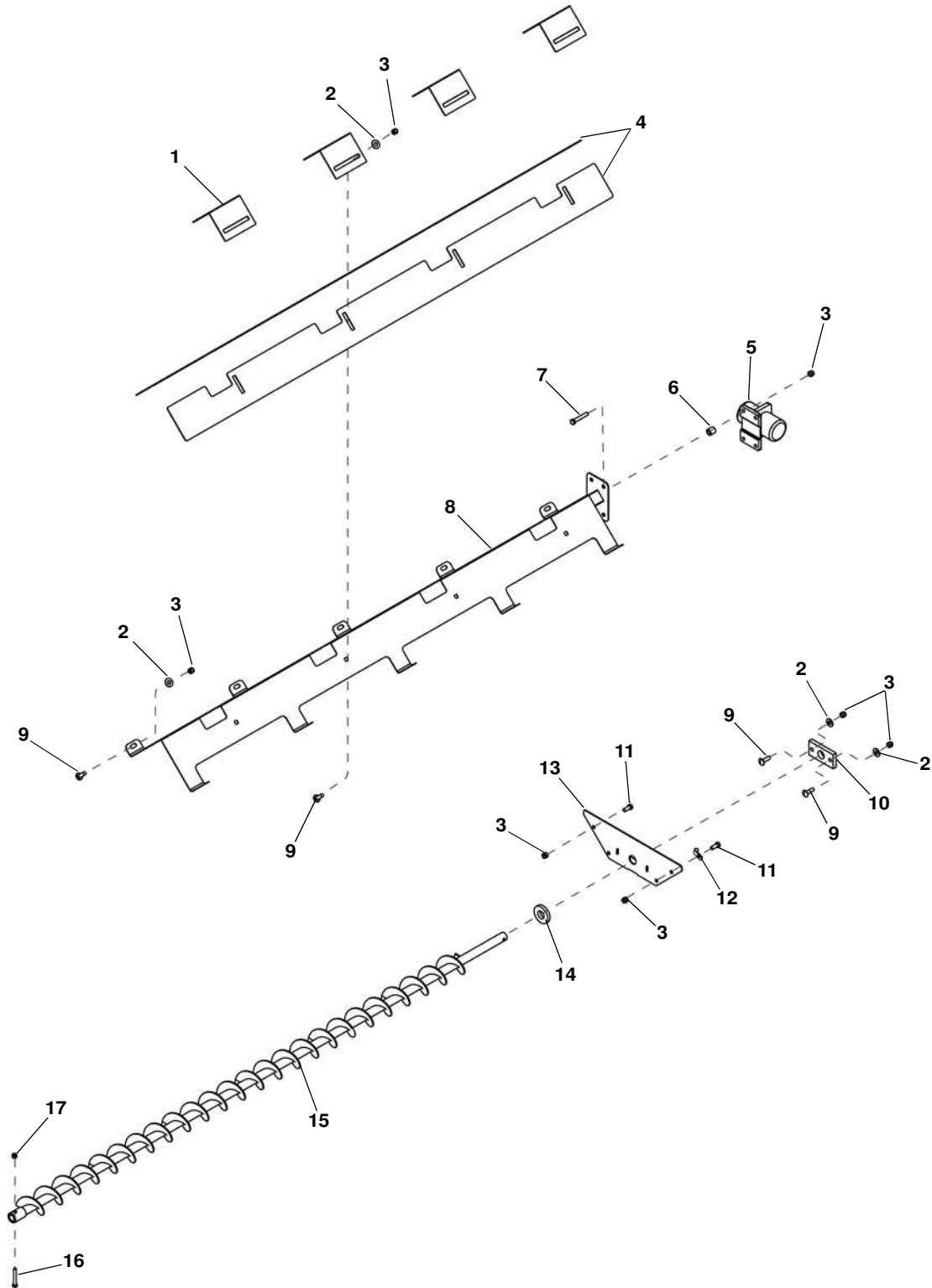
CHUTE AND SPINNER



CHUTE AND SPINNER

ITEM	PART NO.	DESCRIPTION	QTY
1	96114887	Bracket, Handle Chute	1
2	98100356	CB, 3/8"-16 x 1-1/4", SS.....	9
3	96102428	Clamp, Cable	1
4	98100213	HHCS, 3/8"-16 x 1-1/2", SS.....	1
5	96114960	Baffle, Internal Chute.....	1
6	98100124	PW, 3/8", SS.....	10
7	98100339	LN, 3/8", SS.....	10
8	96114493	Chute, Short, 16-5/8".....	1
	96114806	Chute, Long, 28-3/4"	1
9	96114494	Bracket, Shield Mount	1
10	96114496	Shield Spinner	1
11	96106135	Spinner, 16" Poly.....	1
12	98100118	LN, 5/16", SS.....	1
13	98100281	HHCS, 5/16"-18 x 2-1/2", SS.....	1
14	98100542	HHCS, 1/4"-28 x 1", SS.....	3
15	98009226	LW, 1/4", SS	3
16	96114808	Plate, Spinner Support	2
17	96115008	Seal, Shaft.....	1
18	96114810	Motor, Gear Drive Spinner.....	1
19	98100488	HWHST, #10-16 x 1", SS	12
20	96114497	Cover, Spinner Chute	1

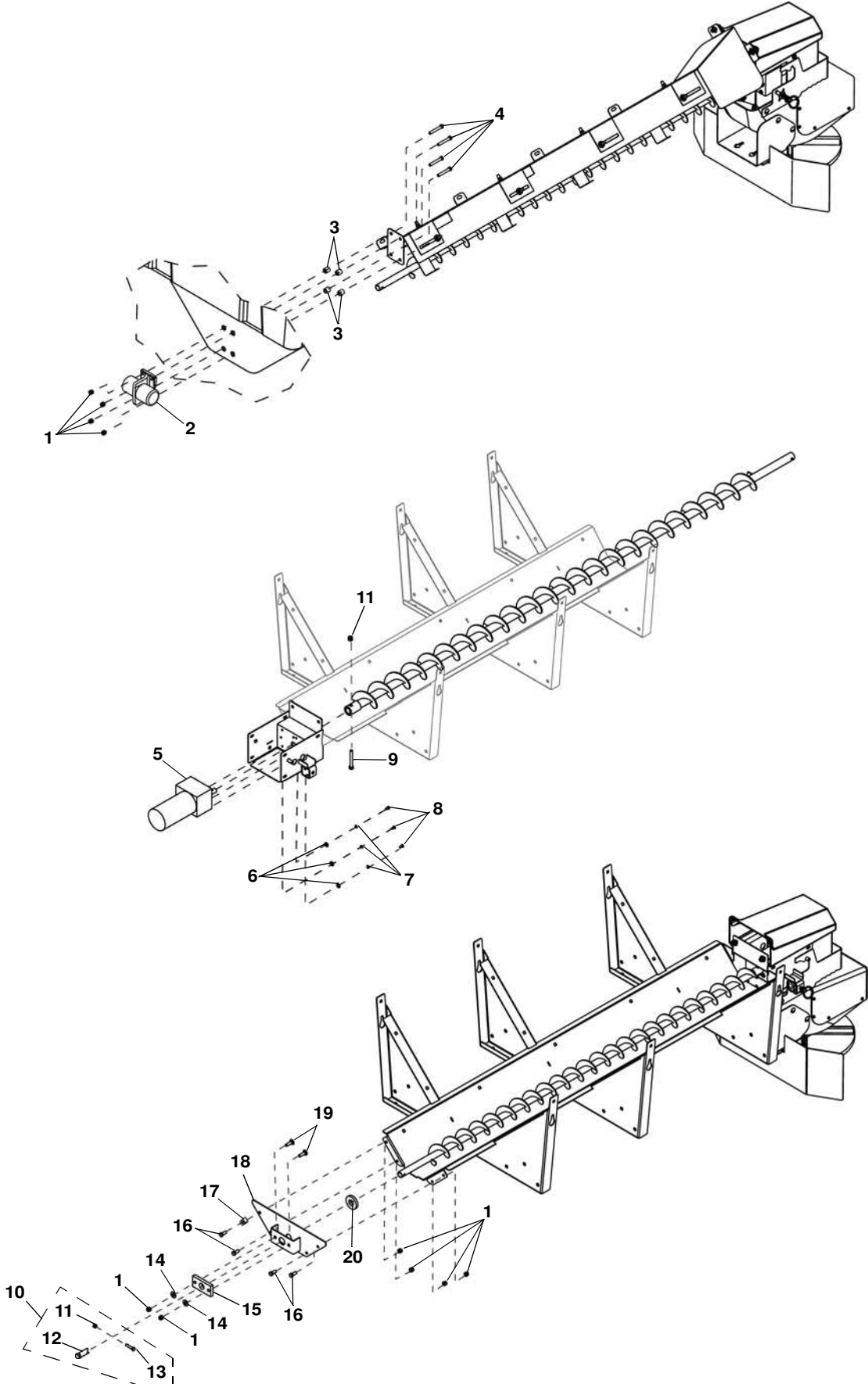
AUGER



AUGER

ITEM	PART NO.	DESCRIPTION	QTY
1	96114942	Baffle Bracket	4
2	98100124	PW, 3/8" SS.....	20
3	98100339	LN, 3/8"-16, SS	28
4	96114955	Plate, Inverted V Cover	2
5	96114903	Vibrator, 200 LB/S	1
6	96114951	Bushing, Vibrator Spacer.....	4
7	98100540	HHCS, 3/8"-16 x 2.5".....	4
8	96114940	Weldment, Inverted V	1
9	98100356	CB, 3/8"-16 x 1.25".....	20
10	96114956	Bearing, Auger	1
11	98100357	HHCS, 3/8"-16 x 7/8", SS.....	4
12	96102428	Cable Clamp	1
13	96115027	Weldment, Bearing Plate.....	1
14	96115007	Seal, Main Auger.....	1
15	96114574	Weldment, Auger.....	1
16	98100114	HHCS, 5/16"-18 x 2.25", SS.....	1
17	98100118	LN, 5/16"-18, SS	1

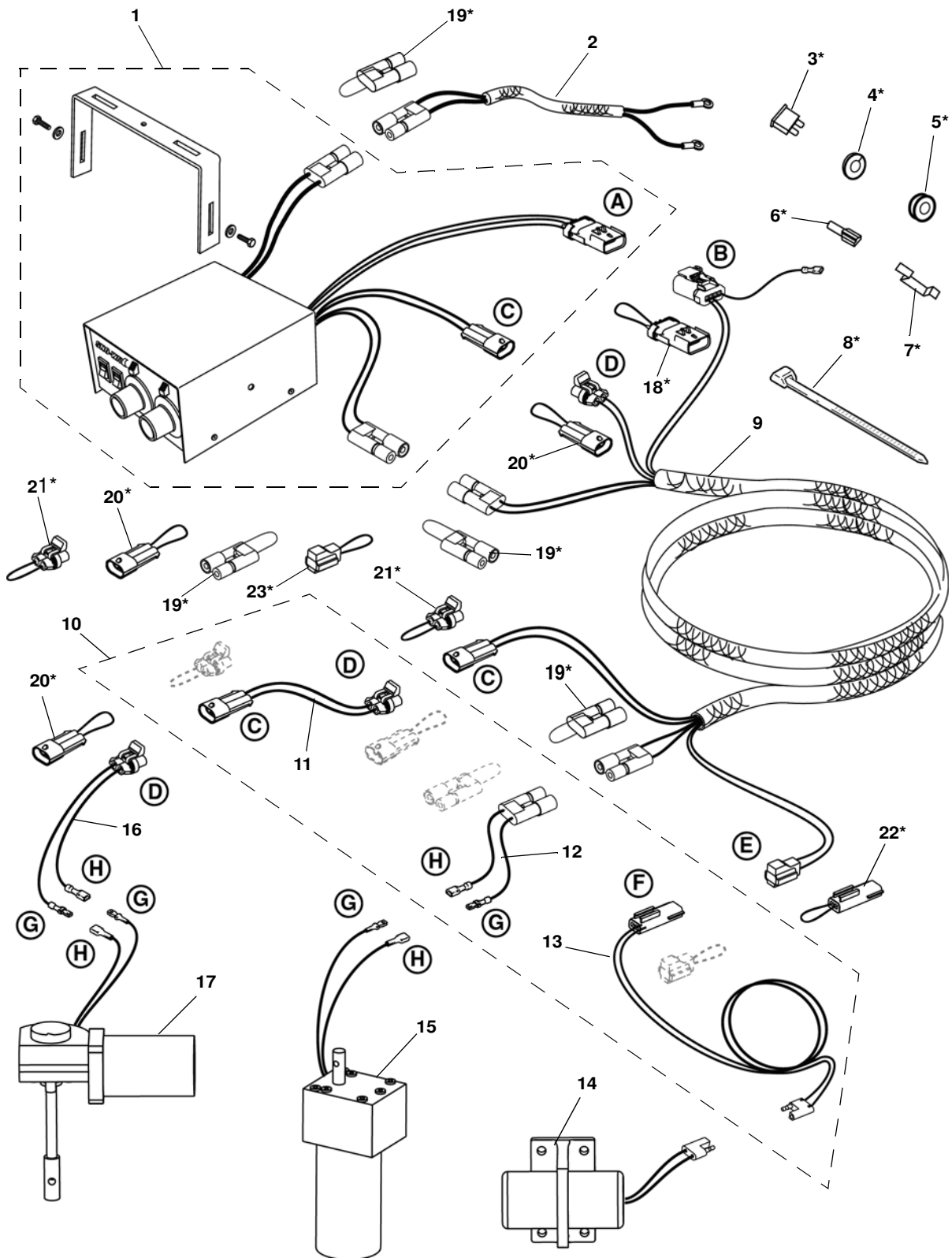
VIBRATOR & AUGER DRIVES, AUGER RELIEF TOOL



VIBRATOR & AUGER DRIVES, AUGER RELIEF TOOL

ITEM	PART NO.	DESCRIPTION	QTY
1	98100339	LN, 3/8"-16, SS	6
2	96114903	Vibrator, 200 LB/S	1
3	96114951	Bushing, Vibrator Spacer.....	4
4	98100540	HHCS, 3/8"-16 x 2.5".....	4
5	96114805	Motor, Auger Drive	1
6	98100122	PW, 1/4", SS.....	3
7	98100226	LW, 1/4", SS	3
8	98100344	HHCS, 1/4"-20 x 1/2", SS.....	3
9	98100114	HHCS, 5/16"-18 x 2.25", SS.....	1
10	96105106	Auger Relief Kit (Includes Items 11, 12, 13) (Optional)	1
11	98100118	LN, 5/16"-18, SS	2
12	96115105	Auger Relief Tool (Optional - Must Order Separately).....	1
13	98100113	HHCS, 5/16"-18 x 1.5", SS.....	1
14	98100124	PW, 3/8" SS.....	2
15	96114956	Bearing, Auger	1
16	98100357	HHCS, 3/8"-16 x 7/8", SS.....	4
17	96102428	Cable Clamp	1
18	96115027	Weldment, Bearing Plate.....	1
19	98100356	CB, 3/8"-16 x 1.25".....	2
20	96115007	Seal, Main Auger.....	1

DUAL VARIABLE SPREADER CONTROL



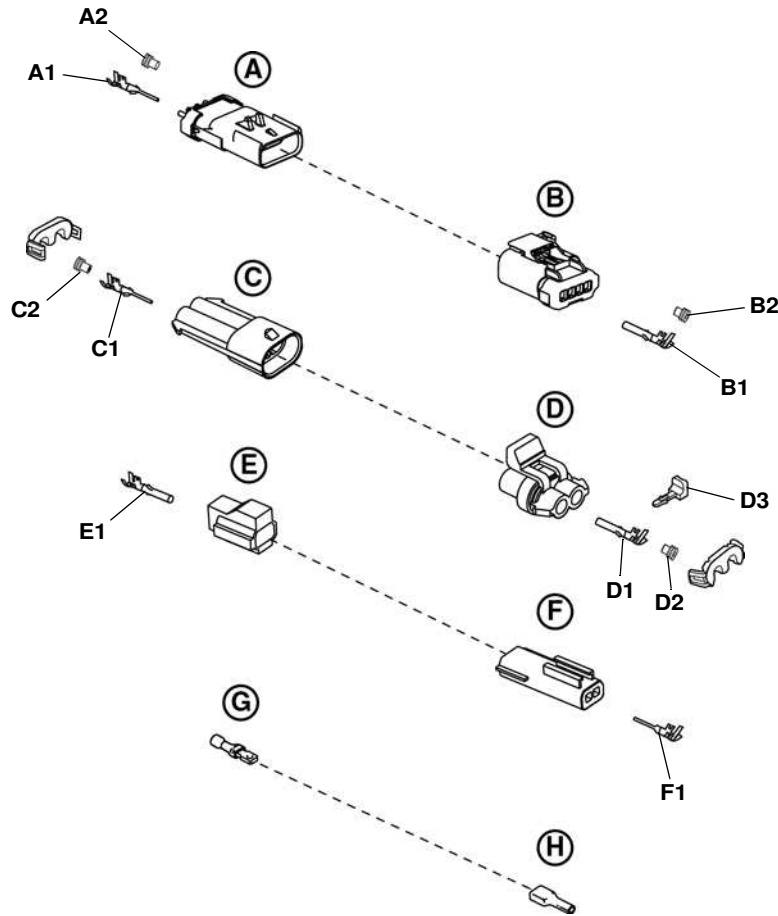
NOTE:
 INDIVIDUAL WIRING HARNESS CONNECTORS, IDENTIFIED (A-H) ON THIS DRAWING, CAN BE ORDERED.
 SEE PAGE 33 FOR THE APPROPRIATE PART NUMBERS. IF A CONNECTOR IS NOT SHOWN ON PAGE 33,
 THE COMPLETE HARNESS MUST BE ORDERED.

DUAL VARIABLE SPREADER CONTROL

ITEM	PART NO.	DESCRIPTION	QTY
1	96115022	Control, PDE, V-Box.....	1
2	96113421	Harness, Battery, DEVBX.....	1
3*	96002083	Fuse	1
4*	96101846	Seal, Neoprene	1
5*	96002077	Grommet, Rubber, 3/4"	1
6*	96002085	Terminal, Female, Push On, 1/4"	1
7*	96101832	Tap, Fuse	1
8*	96001227	Tie, Cable, Black, 11"	5
9	96114865	Harness, Main DEV.....	1
10	96114902	Kit, Harness, 3-pc Set (Includes 11, 12, 13) (For Spinner, Auger & Vibrator Motors).....	1
11	96115348	Kit, Harness, Spinner Loop.....	1
12	96115137	Kit, Harness, Auger Loop	1
13	96115347	Kit, Harness, Vibrator Loop	1
14	96114903	Vibrator, 200 LB/S	1
15	96114805	Motor, Auger Drive	1
16	96114866	Harness, Spinner Motor (Chute)	1
17	96114810	Motor, Spinner	1
18*	96112872	Cap, Apex, 4-Way, Male	1
19*	96105082	Cap, Protective.....	4
20*	96115129	Cap, Metri Pack, 2-Way, Male	3
21*	96115130	Cap, Metri Pack, 2-Way, Female	2
22*	96115131	Cap, Apex, 2-Way, Male	1
23*	96115133	Cap, Apex, 2-Way Female	1
24	96115128	Kit, Electric PDE Controller (*Includes 3 -8, 18 - 25).....	1

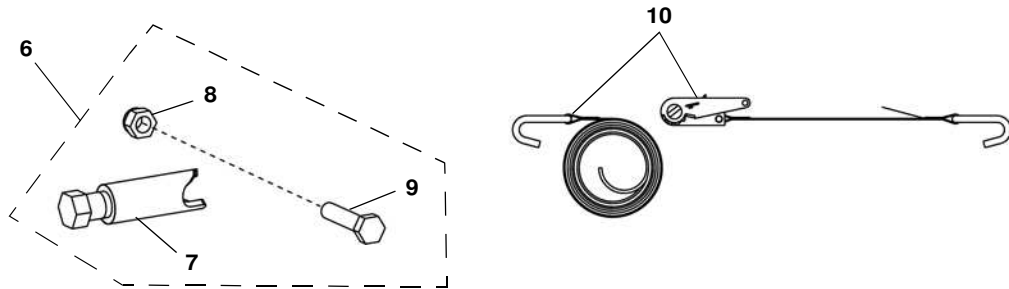
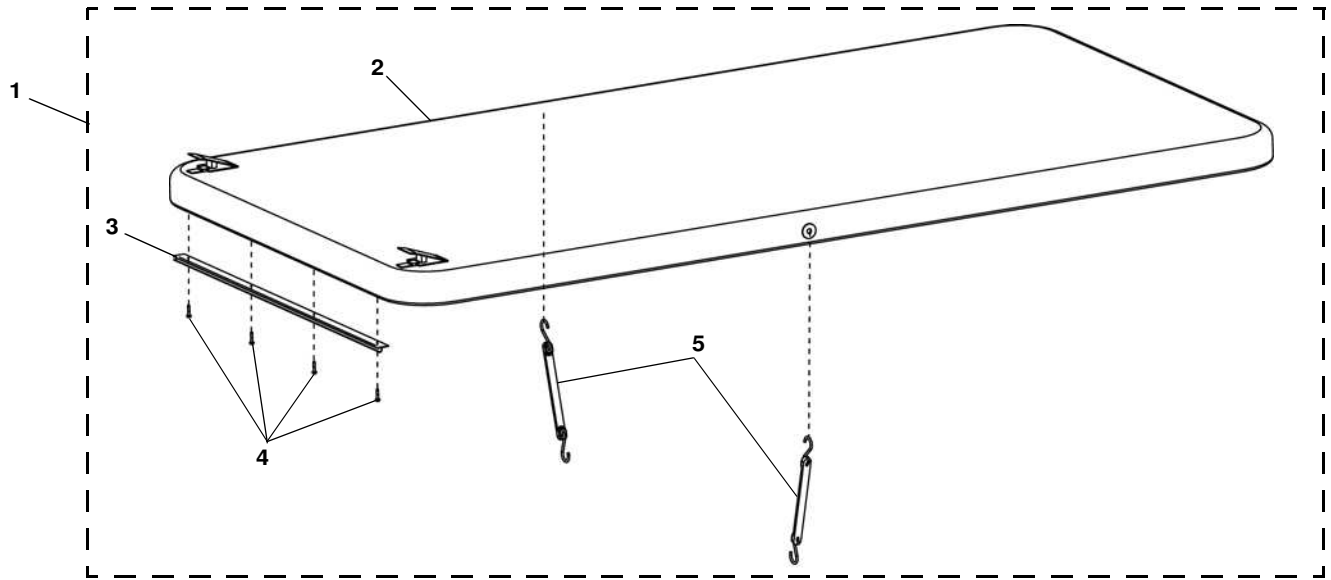
*Included in Kit #24

WIRING HARNESS CONNECTORS



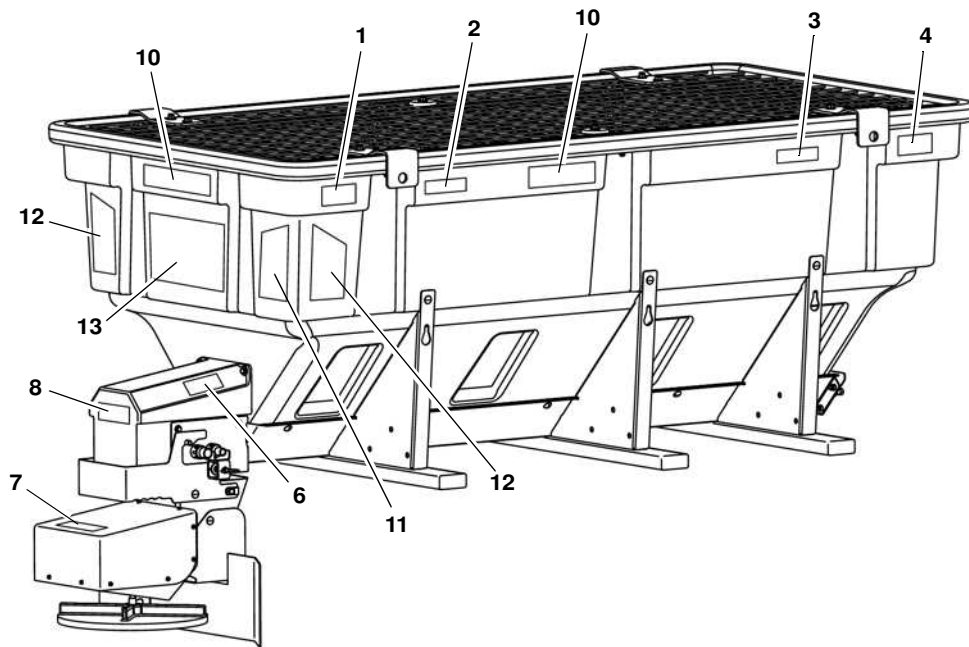
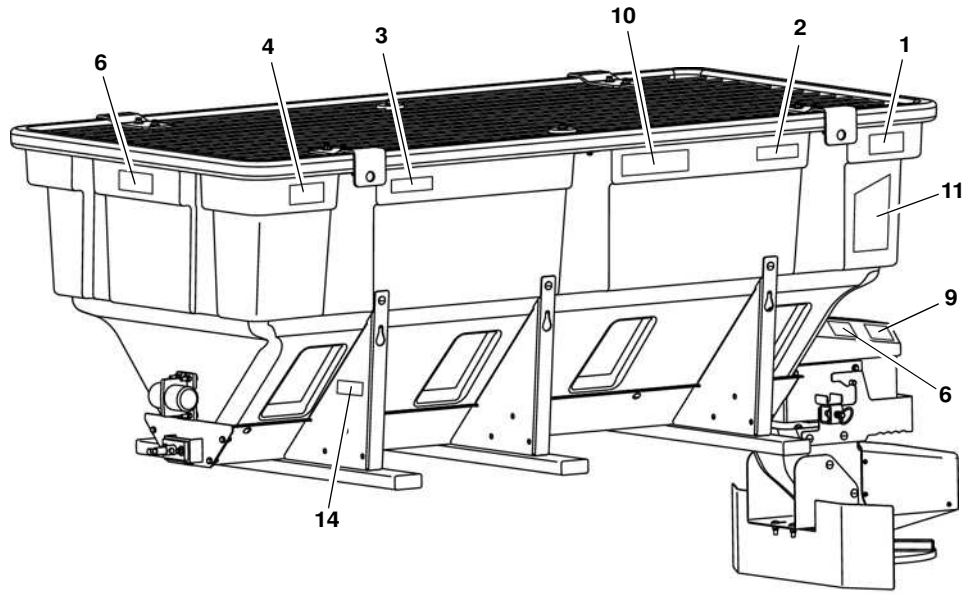
ITEM	PART NO.	DESCRIPTION	QTY
A	96112301	4 Way Connector, Male.....	A/R
A1	96108661	Terminal, Male.....	3
A2	96108142	Plug, Cavity.....	1
B	96112300	4 Way Connector, Female.....	A/R
B1	96108662	Terminal, Female.....	3
B2	96108142	Plug, Cavity.....	1
C	96102441	Connector, Male, 2 Pin, 10/12 GA.....	A/R
C1	96102442	Terminal, Male.....	2
C2	96102443	Seal.....	2
D	96102346	Connector, Female, 2 Pin, 10/12 GA.....	A/R
D1	96102347	Terminal, Female.....	2
D2	96102443	Seal.....	2
D3	96102418	Secondary Lock.....	1
E	96112731	Connector Body, Female, 2 Way.....	A/R
E1	96118662	Terminal, Female.....	2
F	96112732	Connector Body, Male, 2 Way.....	A/R
F1	96118661	Terminal, Male.....	2
G	96114970	Flat Blade Connector, Male, 1/4".....	A/R
H	96113111	Flat Blade Connector, Female, 1/4".....	A/R

ACCESSORIES



ITEM	PART NO.	DESCRIPTION	QTY
1	99100114	Tarp Kit (Includes Items 2, 3, 4, 5	1
2	96115124	Tarp.....	1
3	96115125	Aluminum Extrusion.....	1
4	96115126	Shock Cord, Rubber	2
5	98100488	Screw, Self Tapping	4
6	96115106	Auger Relief Tool Kit (Includes 7, 8, 9)	1
7	96115105	Auger Relief Tool	1
8	98100113	HHCS, 5/16"-18 x 1.5", SS	1
9	98100118	LN, 5/16"-18, SS.....	1
10	99100700	Kit, Ratchet Strap (Includes 4 Ratchet Straps)	1

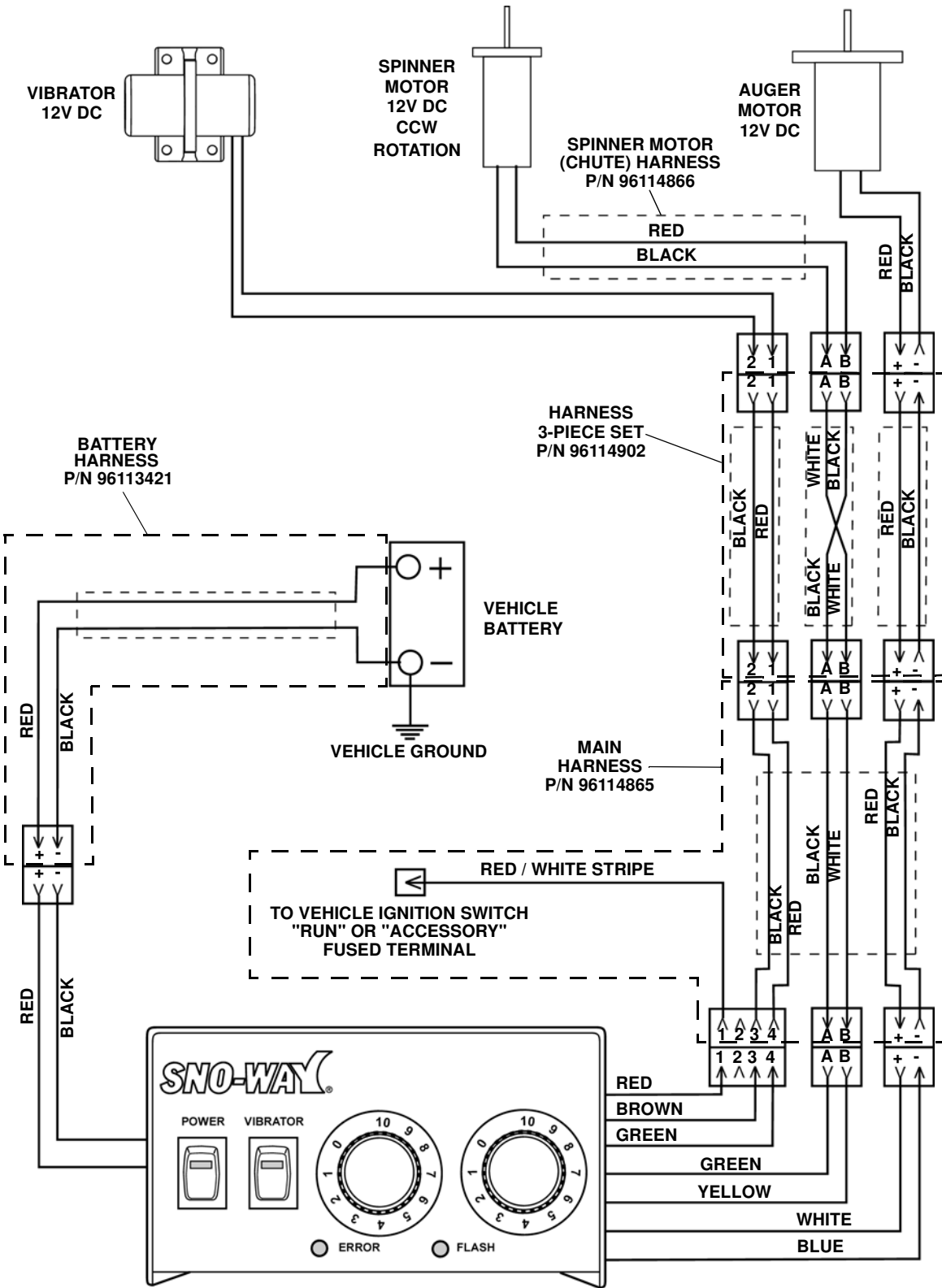
DECALS



DECALS

ITEM	PART NO.	DESCRIPTION	QTY.
1		Decal, Warning, Do Not Enter Hopper.....	2
2		Decal, Important, Material.....	2
3		Decal, Warning, Do Not Exceed GVWR.....	2
4		Decal, Warning, Do Not Ride.....	2
5		Decal, Warning, Keep Hands & Feet.....	1
6		Decal, Warning, Rotation & Pinch Point	3
7		Decal, Warning, Flying Debris	1
8		Decal, Warning, Keep All Guards	1
9		Decal, Warning, Shut Off	1
10		Decal, 'Sno-Way'	3
11	97101814	Decal, Reflective Yellow, DS.....	2
12	97101813	Decal, Reflective Yellow, PS.....	2
13	97101815	Decal, PDE800	1
14		Decal, Serial Number	1
15	96115134	Decal Kit (Includes 1-12) (Not Shown)	1

WIRING SCHEMATIC - DUAL VARIABLE CONTROL



NUMERICAL INDEX

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
96001227	34	8	96114887	28	1	98100118	24	20
96002077	34	5	96114902	34	10		28	12
96002083	34	3	96114903	30	5		30	17
96002085	34	6		32	2		32	11
96101832	34	7		34	14		36	9
96101846	34	4	96114940	30	8	98100122	24	18
96102346	35	D	96114942	30	1		24	26
96102347	35	D1	96114951	30	6		32	6
96102418	35	D3		32	3	98100124	24	3
96102428	24	27	96114955	30	4		26	2
	28	3	96114956	30	10		28	6
	30	12		32	15		30	2
	32	17	96114957	24	15		32	14
96102441	35	C	96114958	24	14	98100213	24	28
96102442	35	C1	96114960	28	5		28	4
96102443	35	C2	96114970	35	G	98100226	32	7
	35	D2	96114980	24	2	98100281	28	13
96105082	34	19	96115007	30	14	98100330	24	9
96105106	32	10		32	20	98100334	24	24
96106135	28	11	96115008	28	17	98100339	24	4
96108142	35	A2	96115013	26	5		26	1
	35	B2	96115022	34	1		28	7
96108661	35	A1	96115027	30	13		30	3
96108662	35	B1		32	18		32	1
96112300	35	B	96115105	32	12	98100344	24	16
96112301	35	A		36	7		24	23
96112731	35	E	96115106	36	6		32	8
96112732	35	F	96115124	36	2	98100347	24	12
96112872	34	18	96115125	36	3	98100356	24	5
96113111	35	H	96115126	36	4		26	4
96113421	34	2	96115128	34	24		28	2
96114493	28	8	96115129	34	20		30	9
96114494	28	9	96115130	34	21		32	19
96114496	28	10	96115131	34	22	98100357	30	11
96114497	28	20	96115133	34	23		32	16
96114502	26	3	96115134	38	15	98100488	28	19
96114556	24	6	96115137	34	12		36	5
96114560	24	1	96115347	34	13	98100535	24	13
	26	9	96115348	34	11	98100536	26	8
96114572	24	22	96118661	35	F1	98100540	30	7
96114574	30	15	96118662	35	E1		32	4
96114586	26	6	97101813	38	12	98100542	28	14
96114587	26	7	97101814	38	11	99100114	36	1
96114589	24	10	97101815	38	13	99100700	36	10
96114805	24	21	97101824	24	8			
	32	5	98009076	24	7			
	34	15	98009226	24	17			
96114806	28	8		24	25			
96114808	28	16		28	15			
96114810	28	18	98100113	32	13			
	34	17		36	8			
96114858	24	11	98100114	24	19			
96114865	34	9		30	16			
96114866	34	16		32	9			

SNO-WAY[®] INTERNATIONAL, INC.

SNO-WAY[®]
SNOW & ICE CONTROL EQUIPMENT

Hartford, WI 53027 USA
Website: www.snoway.com
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DEALER PRE-DELIVERY CHECKLIST

The following inspections **MUST** be accomplished prior to delivering the SNO-WAY® PDE800 V-BOX DUAL ELECTRIC SPREADER to the customer.

Place an X ☒ in the box after accomplishing each item on this checklist.

CHECK THAT:

- Parts have not been damaged in shipment. Repair or replace items that are loose, dented or missing.
- All covers, guards and decals are in place and attached securely.
- Inverted V baffles are adjusted closed on top and side baffles up all the way.
- Controller and electrical wiring is properly installed.
- Inverted V is installed properly and all hardware is secure.
- Chute has been installed, harness connected and secured.
- Electric auger, spinner and vibrator motors are operating properly.

Start the vehicle engine and place an X ☒ in the box after accomplishing each item.

CHECK THAT:

- Auger and spinner shafts rotate freely.
- Auger drive and spinner rotation is correct (auger rotation as viewed from bearing end is CCW; spinner rotation as viewed from top of hopper is CCW).
- Speed can be adjusted through speed range with controller.
- Listen for abnormal noises or vibrations; Repair or replace as necessary.

DELIVERY CHECKLIST

The following checklist is to be accomplished with the customer present, place an X ☒ in the box after accomplishing each item.

- After giving the customer his operating manual, instruct him to read it **PRIOR** to operating the spreader. If he has any questions or does not understand part(s) of the manual, ask him to contact the dealer for answers or explanations **BEFORE** operating the unit.
- Record the spreader and chute serial numbers, date of purchase, purchaser's name and address, and the dealers name, address and phone number in the space provided on page 1 of the owner's manual.
- Explain spreader installation and removal procedures.
- Demonstrate all controller functions.
- Fill out warranty Registration Card and provide the original to customer. Copy for your records. Register the warranty on-line prior to release to customer. NO warranty claims can be honored if the warranty is not registered and on file at the factory.

SNO-WAY® INTERNATIONAL, INC.

SNO-WAY
SNOW & ICE CONTROL EQUIPMENT

Hartford, WI 53027 USA
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