

DR® LEAF & LAWN VACUUM



SAFETY & OPERATING INSTRUCTIONS

Models:

- Premier
- Pro
- Pro-XL



Pro-XL Model Shown

Serial No. _____

Order No. _____

DR Power Equipment
Toll-free phone: 1-800-DR-OWNER (376-9637)
Fax: 1-802-877-1213
Website: www.DRpower.com

WARNING

Read and understand this manual and all instructions before operating the DR LEAF and LAWN VACUUM.

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Conventions used in this manual

WARNING

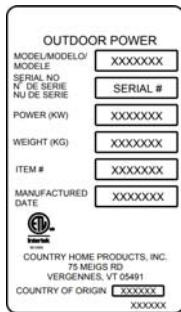
This indicates a hazardous situation, which, if not avoided, could result in death or serious injury.

CAUTION

This indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE

This information is important in the proper use of your machine. Failure to follow this instruction could result in damage to your machine or property.



Serial Number and Order Number

A Serial Number is used to identify your machine and is located on the Serial Number Label on your machine. An Order Number is used to check and maintain your order history and is located on the upper left portion of your packing slip. For your convenience and ready reference, enter the Serial Number and Order Number in the space provided on the front cover of this manual.

Additional Information and Potential Changes

DR Power Equipment reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

California Proposition 65

 **WARNING**
CANCER AND REPRODUCTIVE HARM - www.P65Warnings.ca.gov

Chapter 1: General Safety Rules

WARNING

Read this safety & operating Instructions manual before you use the DR LEAF and LAWN VACUUM. Become familiar with the operation and service recommendations to ensure the best performance from your machine. If you have any questions or need assistance, please contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you.

Labels

Your DR LEAF and LAWN VACUUM carries prominent labels as reminders for its proper and safe use. Shown below are copies of all the Safety and Information labels that appear on the equipment. Take a moment to study them and make a note of their location on your machine as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.



#37230



#18887



#37229



#15342



#13758



#34278



#34279

Protecting Yourself and Those Around You

WARNING

This is a high-powered machine, with moving parts operating with high energy at high speeds. You must use proper clothing and safety gear when operating this machine to prevent or minimize the risk of severe injury. This machine can cut, and sever parts of your body if they become in contact with the moving impeller blades. Always take the following precautions when operating this machine:

- Always wear protective goggles or safety glasses with side shields while operating either your tractor lawn deck, the vacuum system, or when performing an adjustment on your DR Leaf and Lawn Vacuum to protect your eyes from possible foreign objects thrown from the machine.
 - Avoid wearing loose clothing or jewelry, which can catch on the machine's moving parts.
 - We recommend wearing gloves while using the DR Leaf and Lawn Vacuum. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
 - Wear shoes with non-slip treads when using your DR Leaf and Lawn Vacuum. If you have safety shoes, we recommend wearing them. Do not use the machine while barefoot or wearing open sandals.
 - Wear long pants while operating the DR Leaf and Lawn Vacuum.
 - Use ear protectors or earplugs rated for at least 20 dba to protect your hearing.
-

Safety for Children and Pets

WARNING

Tragic accidents can occur if the operator is not alert to the presence of children and pets. Children and pets are often attracted to the machine and the vacuuming activity. *Never* assume that children or pets will remain where you last saw them. Always follow these precautions:

- Keep children and pets at least 100 feet from the working area and ensure they are under the watchful care of a responsible adult.
 - Be alert and always turn off the lawn tractor engine and the DR Leaf and Lawn Vacuum engine if children or pets enter the work area.
 - Before and while moving backwards, look behind, and *down* for small children and pets. You cannot see directly behind the collector box.
 - Never allow children to operate the Lawn Tractor or Vacuum.
 - Never allow children or pets to play in the collector. If they become trapped in the enclosure they may be exposed to temperatures similar to leaving a child or pet in a car with the windows closed on a sunny day.
 - Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure your vision.
-

Safety with Gasoline - Powered Machines

WARNING

Gasoline is a highly flammable liquid. Gasoline also gives off flammable vapor that can be easily ignited and cause a fire or explosion. Never overlook the hazards of gasoline. Always follow these precautions:

- Never run the engine in an enclosed area or without proper ventilation as the exhaust from the engine contains carbon monoxide, which is an odorless, tasteless, and deadly poisonous gas.
 - Store all fuel and oil in containers specifically designed and approved for this purpose and keep away from heat and open flame, and out of the reach of children.
 - Replace rubber fuel lines and grommets when worn or damaged and after 5 years of use.
 - Fill the gasoline tank outdoors with the engine off and allow the engine to cool completely. Don't handle gasoline if you or anyone nearby is smoking, or if you're near anything that could cause it to ignite or explode. Reinstall the fuel tank Cap and fuel container cap securely.
-

WARNING

- If you spill gasoline, do not attempt to start the engine. Move the machine away from the area of the spill and avoid creating any source of ignition until the gas vapors have dissipated. Wipe up any spilled fuel to prevent a fire hazard and properly dispose of the waste.
 - Allow the engine to cool completely and empty the collector box before storing the DR Leaf and Lawn Vacuum in any enclosure. Remember, decomposing material can generate heat and start a fire. Never store the machine with gas in the tank or a fuel container, near an open flame or spark such as a water heater, space heater, clothes dryer or furnace.
 - Never make adjustments or repairs with the engine running. Shut down the engine, disconnect the spark plug wire, keeping it away from the spark plug to prevent accidental starting, wait 5 minutes before making adjustments or repairs.
 - Never tamper with the engine's governor setting. The governor controls the maximum safe operation speed and protects the engine. Over-speeding the engine is dangerous and will cause damage to the engine and to the other moving parts of the machine. If required, see your authorized dealer for engine governor adjustments.
 - Keep your hands and combustible substances away from the engine when it is hot and clean the engine area after each use.
 - To reduce fire hazard, keep the engine cooling fins and muffler area free of debris build-up such as leaves, grass, oil, grease or any other combustible material.
 - Never cover the machine while the muffler is still hot.
 - Do not operate the engine with the air cleaner or the carburetor air intake cover removed, except for adjustment. Removal of such parts could create a fire hazard.
 - Do not use flammable solutions to clean the air filter.
 - The muffler and engine become very hot and can cause a severe burn; do not touch.
 - The exhaust area on the engine becomes very hot with use. Allow the engine to cool before doing maintenance or making adjustments.
-

Slope Operation

WARNING

Slopes are a major factor related to tip over accidents, which can result in severe injury. All slopes require caution. If you feel uneasy on a slope, do not vacuum it. Always take the following precautions when using this machine on slopes:

ALWAYS:

- Vacuum up and down the face of slopes, never across. Exercise extreme caution when changing direction on slopes.
- Remove objects such as stones, glass and metal objects such as cans.
- Watch out for holes, ruts, or bumps. Tall grass can hide obstacles.

NEVER:

- Never vacuum near drop-offs, ditches, or embankments. Your tractor and the vacuum may tip over.
 - Never vacuum on slopes greater than 15 degrees or any excessively steep slopes.
 - Never vacuum on wet slopes. Reduced traction could result in slipping and a possible roll over.
-

General Safety

WARNING

This is a high-powered machine, with moving parts operating with high energy at high speeds. You must operate the machine safely. Unsafe operation can create a number of hazards for you, as well as anyone else in the nearby area. Always take the following precautions when using this machine:

- Never allow people who are unfamiliar with these instructions to use the DR Leaf and Lawn Vacuum.
 - To be safe, do not operate the machine near small children or pets, and never allow children to operate the vacuum. Stop the vacuum engine and tractor engine when another person or pet approaches.
 - Never allow people or pets to ride in the collector box or on the frame.
-

General Safety (continued)

WARNING

- Never run the engine unless the chute, fabric collector sleeve, and hose are all securely in place and the engine frame is securely connected to the cart frame.
 - Check behind your DR Leaf and Lawn Vacuum before backing up. You cannot see directly behind the collector box.
 - Never attempt to open or empty the collector while the lawn tractor deck is engaged or the DR Leaf and Lawn Vacuum engine is running. Debris may exit at high velocity as you begin to open the collector.
 - Do not operate in sandy areas where you will vacuum large quantities of sand. Sand will erode the vacuum housing. Check for holes after each use and replace the housing and liner when holes develop.
 - Never operate the machine on slopes greater than 15 degrees.
 - Never tow the DR Leaf and Lawn Vacuum faster than 8 mph.
 - Always shut off the lawn tractor engine and the DR Leaf and Lawn Vacuum engine and disconnect the spark plug wire before attempting to clear any obstructions from the hose.
 - Use the DR Leaf and Lawn Vacuum only in daylight.
 - Never straddle or reach over the engine area at any time.
 - Use only your hands to operate the DR Leaf and Lawn Vacuum engine controls.
 - Do not, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the DR Leaf and Lawn Vacuum. Modifications to your machine could cause personal injuries and will void your warranty.
 - Do not alter or tamper with safety devices or shields. Make sure they are in their proper position.
 - While using the DR Leaf and Lawn Vacuum, do not hurry or take things for granted.
 - Never leave the DR Leaf and Lawn Vacuum unattended with its engine running.
 - Do not operate the machine when under the influence of alcohol, drugs, or medication.
-

CAUTION

The DR Leaf and Lawn Vacuum must be operated safely to prevent or minimize the risk of minor or moderate injury. Unsafe operation can create a number of hazards for you. Always take the following precautions when operating this machine:

- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
 - Never use the DR Leaf and Lawn Vacuum to vacuum anything but yard waste, such as leaves, grass, small twigs and pine cones.
 - If the machine starts to make an unusual noise or vibration, immediately shut off the engine, disconnect the spark plug wire, and allow all moving parts to come to a complete stop and cool. Inspect for clogging or damage. Clean and repair and/or replace damaged parts.
 - See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.
 - Always keep the equipment in a good safe operating condition. Always make certain nuts and bolts are tight and always use the supplied self-locking hardware; do not substitute.
-

A Note to All Users

Under California law, and the laws of some other states, you are not permitted to operate an internal combustion engine using hydrocarbon fuels without an engine spark arrester. This also applies to operation on US Forest Lands. All DR® LEAF and LAWN VACUUMS shipped to California, New Mexico and Washington State are provided with spark arresters. Failure of the owner or operator to maintain this equipment in compliance with state regulations is a misdemeanor under California law and may be in violation of other state and/or federal regulations. Contact your State Park Association or the appropriate state organization for specific information in your area.

No list of warnings and cautions can be all-inclusive. If situations occur that are not covered by this manual, the operator must apply common sense and operate this DR® LEAF and LAWN VACUUM in a safe manner. Contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Chapter 2: Setting Up the DR LEAF and LAWN VACUUM

It may be helpful to familiarize yourself with the controls and features of your DR LEAF and LAWN VACUUM as shown in **Figure 1** before beginning these procedures. If you have any questions at all, please feel free to contact us at www.DRpower.com.

DR LEAF and LAWN VACUUM Controls and Features

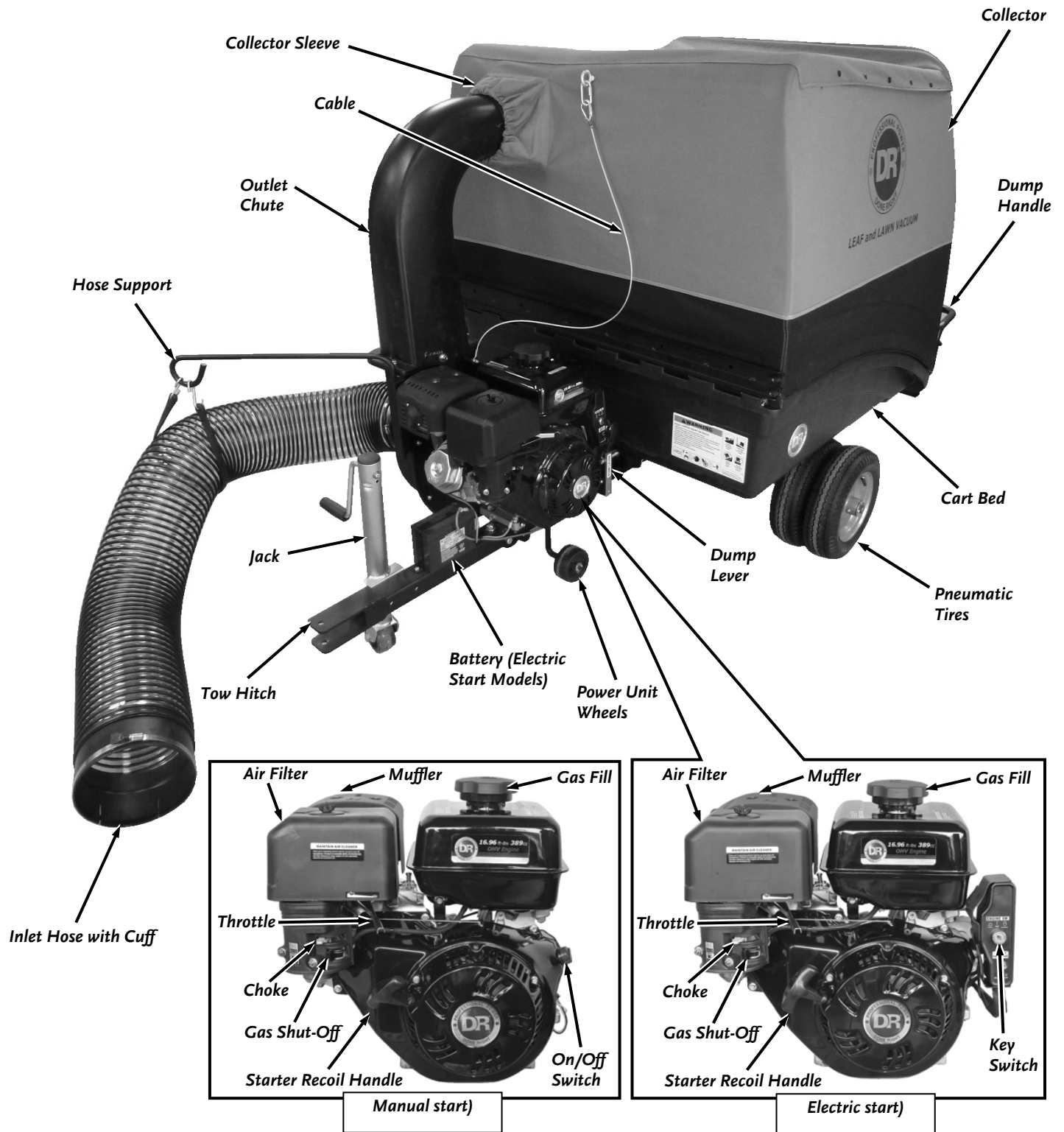


Figure 1

Specifications

	PREMIER	PRO	PRO-XL
Engine	DR Power Equipment R225	DR Power Equipment R300	DR Power Equipment R390
Ft-lbs Torque	9.59	13.28	16.96
Starting	Manual or Electric w/ Recoil Backup	Manual or Electric w/ Recoil Backup	Manual or Electric w/ Recoil Backup
RPM	3800	3800	3800
Impeller	Steel, 5 Blades w/Serrated Teeth	Steel, 5 Blades w/Serrated Teeth	Teel, 5 Blades w/Serrated Teeth
Weight	13.2 Lbs	13.2 Lbs	13.2 Lbs
Mount	Keyless Tapered Direct Engine Mount	Keyless Tapered Direct Engine Mount	Keyless Tapered Direct Engine Mount
Vacuum	2038 CFM	2237 CFM	2237 CFM
Suction	66 MPH	72 MPH	72 MPH
Hose	8" ID	8" ID	8" ID
Collector	Clamshell Design	Clamshell Design	Clamshell Design
Volume	27 Cuft, 200 Gallons	43 Cuft, 321 Gallons	43 Cuft, 321 Gallons
Capacity	500 Lbs	800 Lbs	800 Lbs
Fabric Enclosure	1800 Denier Polyester with Bonded PVC Backing	1800 Denier Polyester with Bonded PVC Backing	1800 Denier Polyester with Bonded PVC Backing
Dump Tilt	60°	60°	60°
Cart	Detachable, High Strength PE Cart Bed	Detachable, High Strength PE Cart Bed	Detachable, High Strength PE Cart Bed
Frame	Welded Steel, 2 Piece Modular Design	Welded Steel, 2 Piece Modular Design	Welded Steel, 2 Piece Modular Design
Impeller Housing	Steel Side w/High Impact HDPE Scroll	Steel Side w/High Impact HDPE Scroll	Steel Side w/High Impact HDPE Scroll
Scroll Liner	.1" Thick Steel	.1" Thick Steel	.1" Thick Steel
Wheels	Pneumatic 5.30/4.50-8 4 Ply w/ Tube	Pneumatic 5.30/4.50-8 4 Ply w/ Tube	Pneumatic 5.30/4.50-8 4 Ply w/ Tube
Quantity	2 (1 Per Side)	4 (2 Per Side)	4 (2 Per Side)
Tire Size	14" Diameter x 4.5" Wide	14" Diameter x 4.5" Wide	14" Diameter x 4.5" Wide
Jack	Optional Accessory	Heavy Duty w/ 4" Wheel (Ships installed)	Heavy Duty w/ 4" Wheel (Ships installed)
Lawn Mower	12 HP Min Flat Terrain otherwise 14 HP	14 HP Min	14 HP Min
Lawn Mower Hitch	Pin Hitch 8" to 15" from the Ground	Pin Hitch 8" to 15" from the Ground	Pin Hitch 8" to 15" from the Ground
Battery (E/S Models)	9Ah, Spade Terminals	9Ah, Spade Terminals	9Ah, Spade Terminals
Dimensions	87.8" L x 40.1" W x 52.6" H	87.8" L x 49.5" W x 58.6" H	87.8" L x 49.5" W x 58.6" H
Weight	231 Lbs M/S, 243 Lbs E/S	299 Lbs M/S, 311 Lbs E/S	313 Lbs M/S, 325 Lbs E/S

Parts supplied on Pallet (Figure 2):

- Power Unit
- Cart Bed with Frame
- Axle
- Tube Frame Handle
- Product Package
 - Safety and Operating Instructions Manual
 - Engine Manual
 - Hardware (see figure 3)
- Large Parts Box (see Figure 4)
- Parts in Cart Bed:
 - 2 Wheels (Premier)
 - 4 Wheels (Pro and Pro XL)
 - Inlet Hose
 - Outlet Duct
 - Flexible Oil Fill Funnel

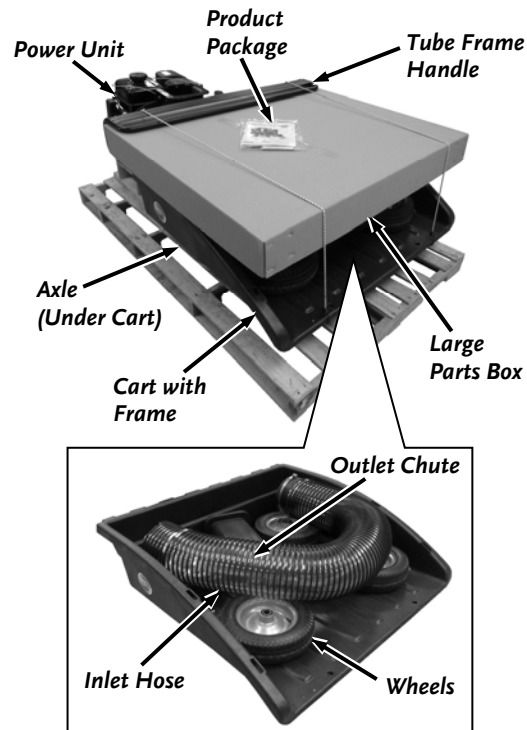


Figure 2

Assembly Parts Identification

Compare the contents of the Parts Boxes and Hardware Packages with the Parts Supplied lists and Figures 3 thru 8 below. If there are any questions contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637).

There may be hardware left over when assembly is finished. This is sometimes expected in the process of filling hardware bags at the factory.

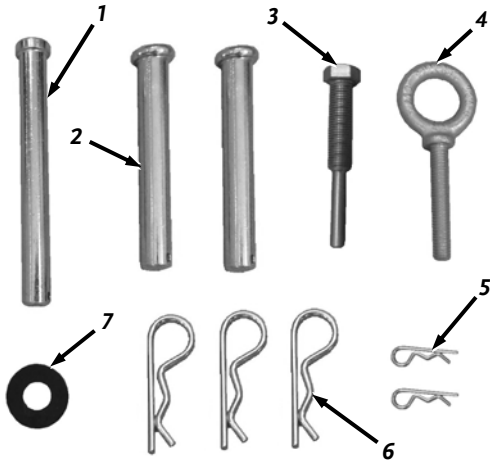


Figure 3

Product Package Hardware (Figure 3):

Item #	Part #	Description	Qty
1	18737	Pin, Clevis, 1/2" X 4.5", ZP	1
2	21154	Pin, Clevis, 1/2" X 3.5", ZP	2
3	35037	Bolt, Hex, 7/16-20, Impeller Tool	1
4	35028	Eyebolt, 5/16-18 X 2", Forged, ZP	1
5	33787	Pin, Cotter, Hair, 1/4-3/8	2
6	16003	Pin, Hitch Clip 1/2"	3
7	18967	Washer, Flat, 1/2", Rubber	1

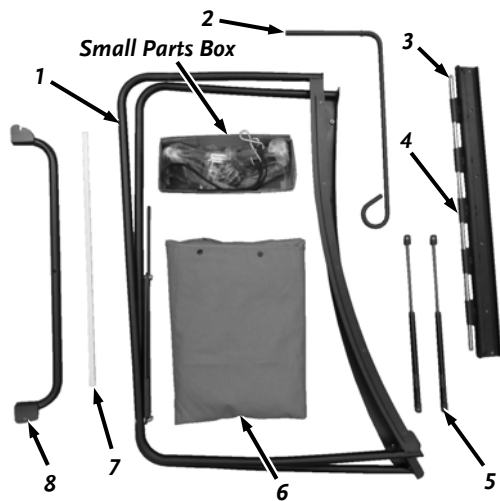


Figure 4

Large Parts Box Contents (Figure 4):

Item #	Description	Qty
1	Tube Frame Assembly	1
2	Rod, Support, Hose	1
3	Pin, Hinge	1
4	Hinge, Tube Frame	1
5	Gas Spring, 500-300 mm, 150 lb	2*
6	Enclosure, Fabric	1
7	Batten, FRP	1
8	Tube Frame, Collector, Top	1

*Only one Gas Spring used for Premier



Figure 5

Small Box Parts (Figure 5):

Item #	Part #	Description	Qty
1	33791	Retainer, Enclosure, Front	2
2	35442	Strap and Hook Set	1
3	33802	Bracket, Axle	2
4	35029	Knob Set, 5/16-18 W/Lock, 17 Pack	1
5	35022	Hardware Set, Power Unit	1
6	36666	Hardware Set, Enclosure	1
7	35021	Hardware Set, Wheels	1

Power Unit Hardware (Figure 6):*

Item #	Part #	Description	Qty
1	35023	Bolt, Hex, Flange, 5/16-18 X .75"	5
2	26556	Bolt, HCS, 1/2-13 X 2.75", GR5, ZP	2
3	33335	Nut, Nylon Lock, Flange, 1/2-13	2
4	11241	Washer, Flat, 5/16" USS, ZP	1
5	11243	Washer, Lock, 5/16", Split, ZP	1
6	33332	Nut, Nylon Lock, Flange, 5/16-18	4

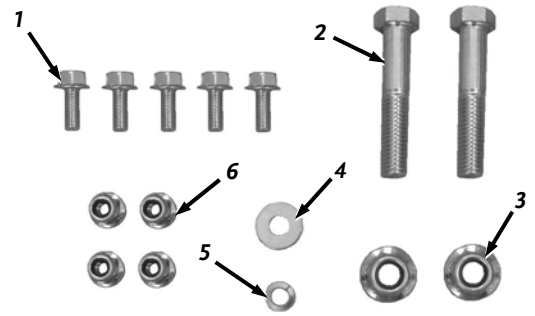


Figure 6

Enclosure Hardware (Figure 7):*

Item #	Part #	Description	Qty
1	35026	Bolt, C-Head, 5/16-18 X 2.5", ZP	4
2	35027	Bolt, C-Head, 5/16-18 X 1.75", ZP	6
3	11073	Nut, Nylon Lock, 1/4-20, ZP	10
4	27905	Push Nut, 5/16"	12*

*Quantity includes extra.

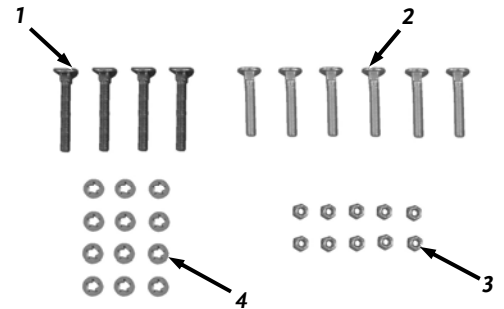


Figure 7

Wheel Hardware (Figure 8):*

Item #	Part #	Description	Qty
1	35039	Washer, 1.06" ID X 2" OD X .13", ZP	4**
2	12334	Bolt, HCS, 3/8-16 X 1.75", GR5, ZP	4
3	33333	Nut, Nylon Lock, Flange, 3/8-16	4
4	12685	Pin, Cotter, 3/16" X 1.5"	2

**Only two needed for Premier (single wheel) machines.

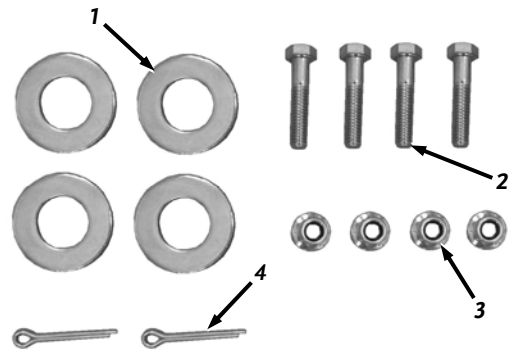


Figure 8

Installing the Wheels

(Use Wheel Hardware Bag Set, see Figure 8)

Tools Needed:

- Two 9/16" Wrenches
- Pliers

1. Tip the Cart over to access the Frame (Figure 9).
2. Install the Axle Brackets and loosely secure with the Bolts and Locknuts using two 9/16" Wrenches.
3. Slide the Axle through the Brackets until the same amount sticks out on the side. Do not tighten the hardware until you are finished step 7 on the following page.

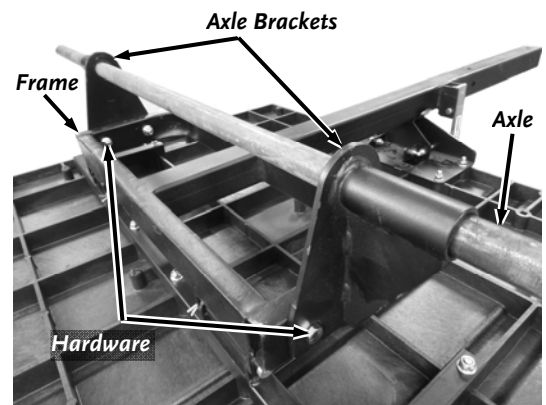


Figure 9

1st Dual Wheel (Valve Stem and Grease Fitting facing in)

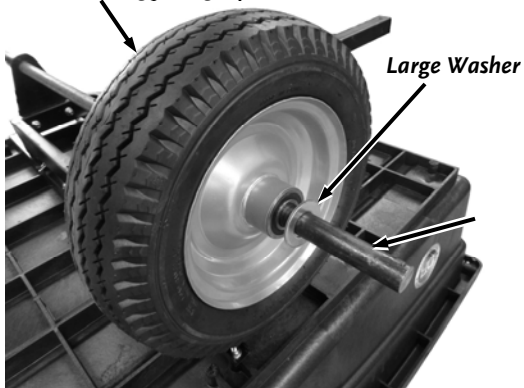


Figure 10

2nd Dual Wheel or single Wheel (Valve Stem and Grease Fitting facing out)

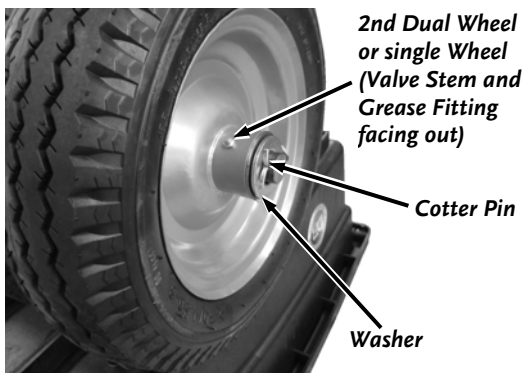


Figure 11

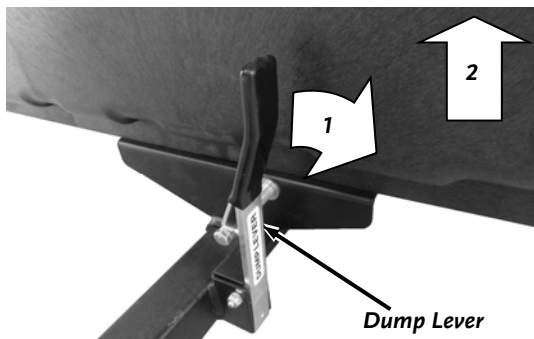


Figure 12

4. **For Machines with Dual Wheels only:** Slide a Wheel onto the Axle with the Valve Stem facing in and install a Washer against the Wheel (**Figure 10**).

Note: No Washers are needed against the Axle Brackets. Dual Wheel machines use one washer between the Dual Wheels and one on the outside. Single Wheel machines only use one Washer on the outside.

5. **For all Machines:** Install a Wheel (second wheel for Dual Wheel models) with the Valve Stem facing out and place a Washer against the Wheel (**Figure 11**).

6. Secure the Wheel/s onto the Axle with a Cotter Pin. Use Pliers to bend the ends of the Cotter Pin to secure the Wheels.

7. Repeat for the Wheel/s on the opposite side.

8. Tip the Cart over onto the Wheels.

Installing the Gas Spring/s

Note: The Premier uses one Gas Spring. The Pro and ProXL use two Gas Springs.

1. Tilt the Cart Bed up by pulling the Lift Handle out and lifting up on the front of the Cart (**Figure 12**).

Note: In the next step, the Gas Spring needs to be installed with the larger end attached to the Frame and the thin Shaft end to the Cart Bed.

2. Insert the right side Gas Spring onto the Studs by pressing the holes in the ends of the Gas Spring over the Studs. They will snap into place. (**Figure 13**).

3. **For Pro and Pro XL:** Do not install the second Gas Spring at this time.

4. Leave the Cart in the up position for the following procedure.

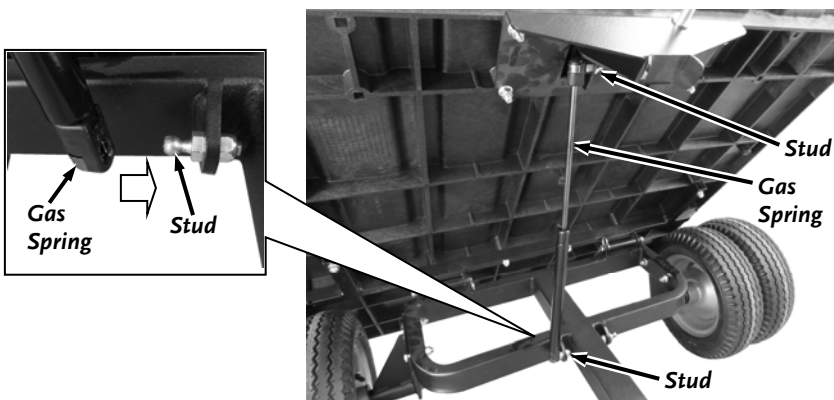


Figure 13

Assembling the Power Unit

(Use Power Unit Hardware Package, see Figure 6)

Tools Needed:

- Two 1/2" Wrenches
- Two 3/4" Wrenches
- Flat Head Screwdriver or 5/16" Wrench

1. Place the Outlet Chute on top of the Impeller Housing and loosely install the Engine side with a 5/16-18 X .75" Bolt, Lock Washer and Flat Washer using a 1/2" Wrench (**Figure 14**).
2. Secure the flange of the Outlet Chute and Impeller Housing with four 5/16-18 X .75" Bolts and 5/16-18 Locknuts using two 1/2" Wrenches. For proper alignment, tighten the two flange Bolts nearer the engine first, then tighten the rest of the hardware.
3. **Machines with Jacks:** Remove the Locking Pin from the lower portion of the Jack and crank the Jack Handle so the Power Unit Tow Hitch is lowered as far as it will go towards the ground (**Figure 15**).

Installing the Power Unit

(Use Power Unit Hardware Package, see Figure 6)

1. Position the Power Unit at the front of the Cart with the Tow Hitch facing forward and the rear holes aligned.
2. Lift the Cart Frame to align the rear hole in the Engine Unit with the hole in the Frame and insert a 1/2" X 3.5" Clevis Pin and Hitch Clip (Clevis Pins and Hitch Clips are provided in the Product Package) (**Figure 16**).
3. Chock the Wheels of the Cart to keep it from moving and have a helper pull forward on the Outlet Chute so the Power Unit and Cart Frame front holes are aligned (**Figure 17**).

Note: If you have a Floor Jack or similar you could jack under the Dump Lever to align the Frames without a helper.

4. Insert the 2nd 1/2" X 3.5" Clevis Pin and Hitch Clip into the front holes of the Engine Unit and Cart Frame (**Figure 18**).
5. Place the two 1/2-13 X 2.75" Bolts from underneath up through the two vertical Holes and secure with 1/2-13 Locknuts using two 3/4" Wrenches. Remove the Floor Jack if one was used.

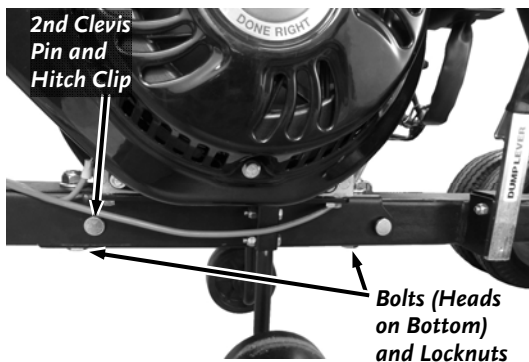


Figure 18

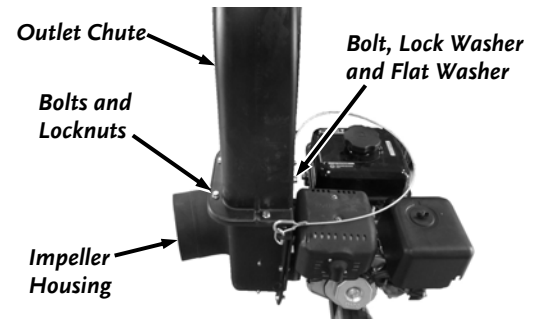


Figure 14

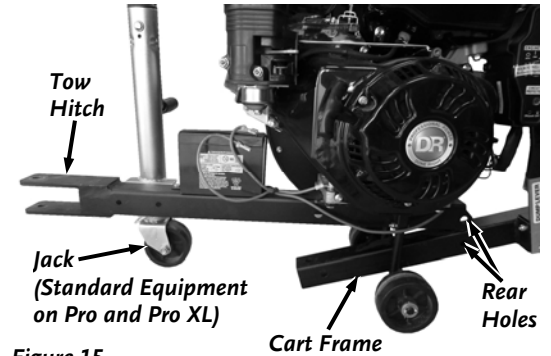


Figure 15

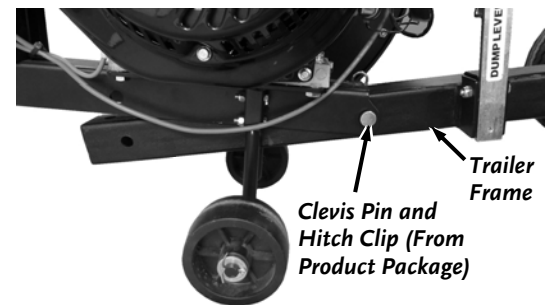


Figure 16



Figure 17

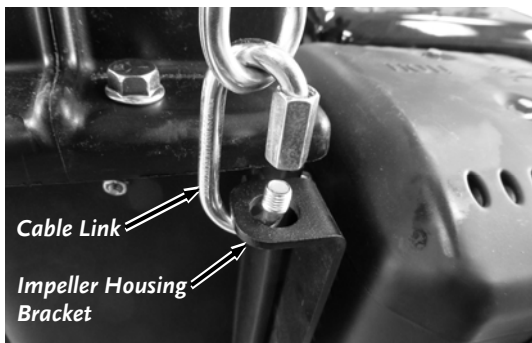


Figure 19

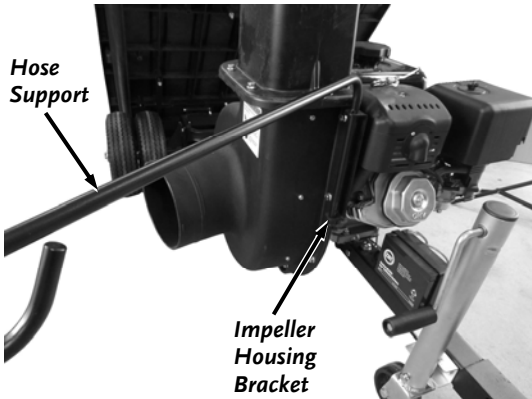


Figure 20

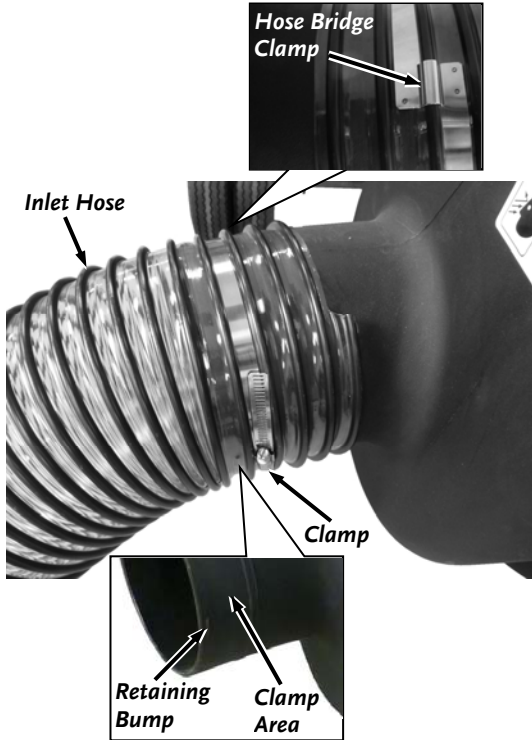


Figure 21

Installing the Hose

1. Unhitch the Cable Link from the Impeller Housing Bracket by turning the hex portion of the link to open it up (**Figure 19**).
2. Slide the Hose Support into the Impeller Housing Bracket holes (**Figure 20**).
3. Using a Flat Head Screwdriver or 5/16" Wrench, loosen the Hose Bridge Clamp, slide the hose onto the Housing neck, and tighten the Hose Bridge Clamp very tightly (**Figure 21**).

Note: Make sure the Hose Bridge Clamp is past the Retaining Bumps on the Housing.

4. Support the Hose with the Rubber Strap by hooking one end into the Support Loop, going under the Hose and securing the other end onto the Support Loop (**Figure 22**).
5. Position the Power Unit out of the way for later attachment to the Collector.

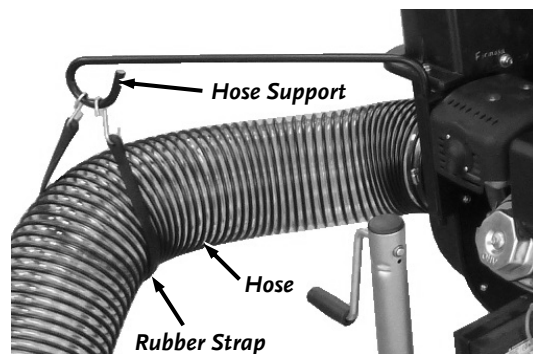


Figure 22

Assembling the Collector

(Use Enclosure Hardware Set, see Figure 7)

Note: The Enclosure Fabric is intentionally a tight fit. Assembly is much easier when you perform the following procedures in order.

Tools Needed:

- 7/16" Deep Socket
- 7/16" Wrench
- Two 1/2" Wrenches
- Hammer

Installing the Retainers

1. Lay out the Enclosure onto a clean flat surface so the inside (black) is facing up (Figure 23). Take note of the Sleeve location which is the front.

Note: The Cover of the shipping Box works well to lay out the Enclosure Fabric.

2. Fold the side flaps so you can see the 5 holes in each of the side pockets. Take note of the front pocket. It also has holes, but they are facing down so are not visible in the photo.
3. Install a Front Retainer into the end of the front Enclosure pocket. It's easier if you keep the studs tilted sideways until they align with the pocket holes (Figure 24).
4. When the Retainer is inserted into the Pocket, rotate it so the studs go into the 2 holes underneath.
5. Repeat steps 3 and 4 to install the second Retainer into the front Pocket on the other side.
6. Set the Tube Frame Assembly onto the Enclosure with the Scissor Link positioned toward the Rear Flap (opposite the Front Sleeve) (Figure 25).

Note: The Left Hand and Right Hand Side Retainers are shipped installed on the Tube Frame Assembly for positioning clarity.

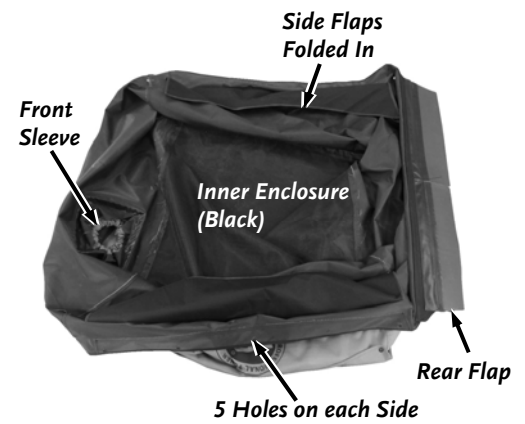


Figure 23

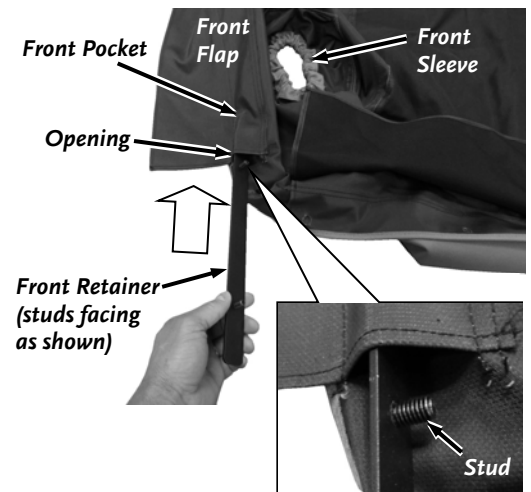


Figure 24

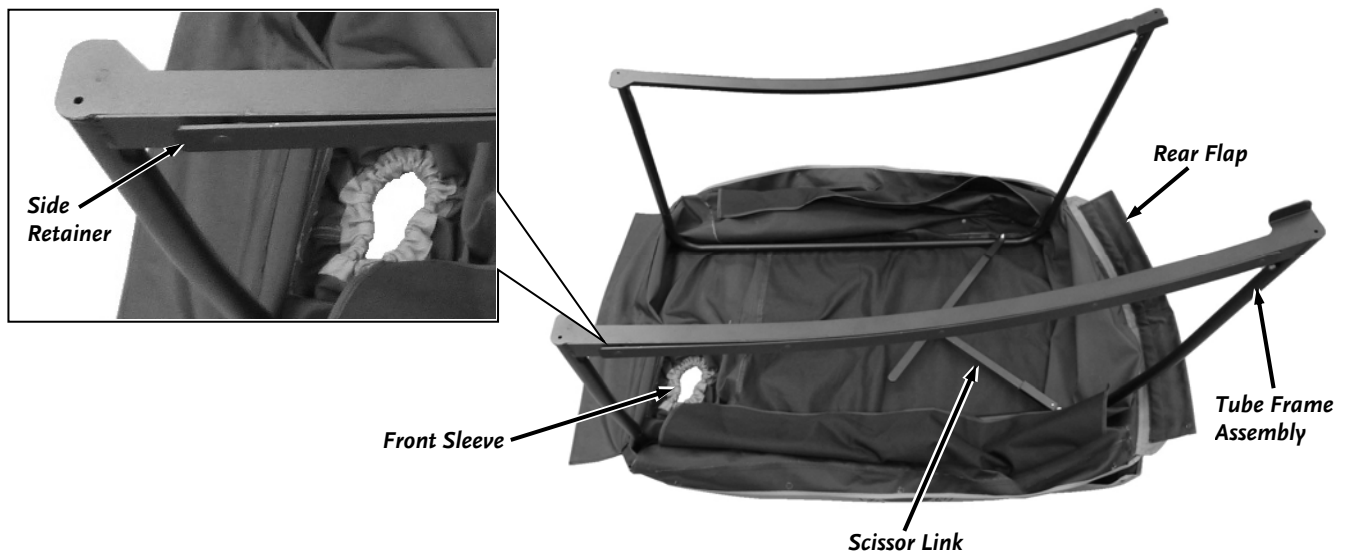


Figure 25



Figure 26

7. Remove the shipping Nuts from one Side Retainer and lay it down (keeping its same orientation) next to the Enclosure Pocket with the studs pointing up (**Figure 26**). Discard the Nuts.
8. Insert the front end of the Side Retainer into the rear end of the pocket so when installed the Side Retainer will be in the same orientation shown in the photo. It works best to keep the studs tilted sideways until they all align with the Enclosure holes, then twist the Retainer so the studs go into the holes (**Figure 27**).
9. Repeat steps 7 and 8 for the other Side Retainer.

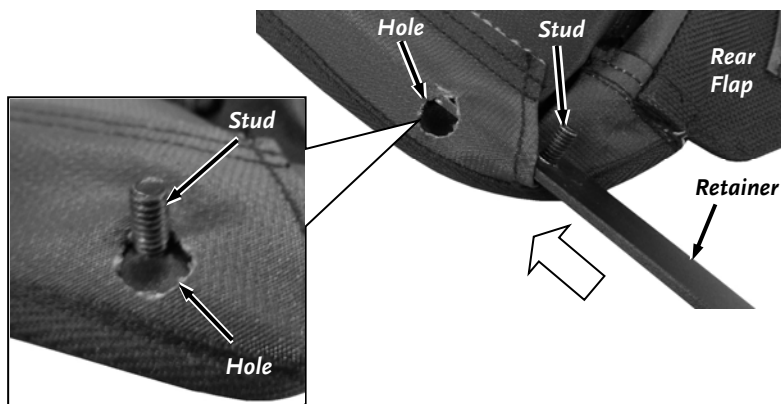


Figure 27

Installing the Interior Bolts

1. Locate the 2 front holes in the Tube Frame Assembly near the bends (**Figure 28**).
2. Insert a 5/16-18 x 1.75" C-Head Bolt into each hole. Take care to position them as shown in Figure 28 so the bolts are pointing in the correct direction and the curved heads are flush with the Tube Frame.
3. Secure each bolt with a Push Nut. Use a 7/16" Deep Socket or a Box End Wrench to force the Push Nut fully onto the Threads.

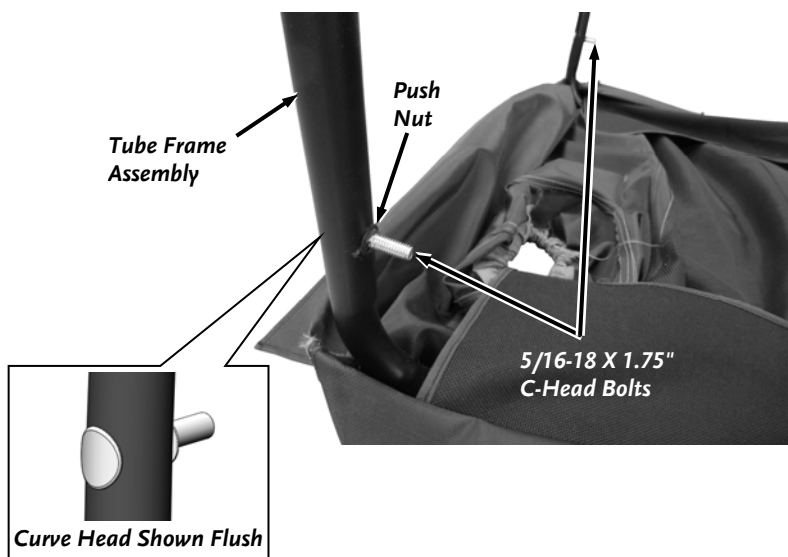


Figure 28

Attaching the Enclosure

1. Lift one side of the Enclosure so the studs on the Side Retainer go into the Tube Frame Assembly holes (**Figure 29**). Secure with 1/4-20 Lock Nuts just finger tight.
2. Repeat step 1 for the other Side Retainer.

Note: Make sure in the next steps that the shorter 1.75" C-Head Bolts go in the front and the longer 2.5" go in the rear.

3. At one front corner, align the two holes of the Enclosure and Tube Frame Assembly (**Figure 30**). Insert a 5/16-18 x 1.75" C-Head bolt into each hole. As before, make sure the curved heads are flush with the Tube Frame.
4. Secure each bolt with a Push Nut. Use a 7/16" Deep Socket or a Box End Wrench to force the Push Nut fully onto the Threads.
5. Repeat steps 3 and 4 for the other front corner.
6. At one rear corner, align the two holes of the Enclosure and Tube Frame Assembly (**Figure 31**). Insert a 5/16-18 x 2.5" C-Head bolt into each hole. As before, make sure the curved heads are flush with the Tube Frame.
7. Secure each bolt with a Push Nut. Use a 7/16" Deep Socket or a Box End Wrench to push the nut on.
8. Repeat steps 6 and 7 for the other rear corner.



Figure 29

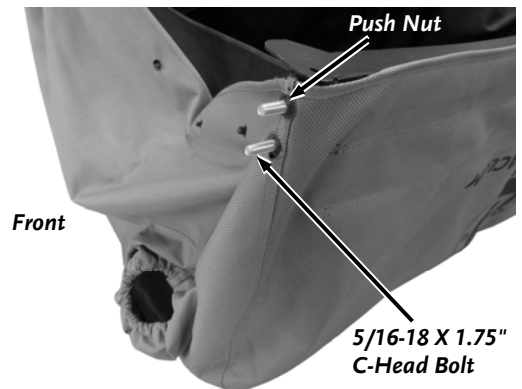


Figure 30

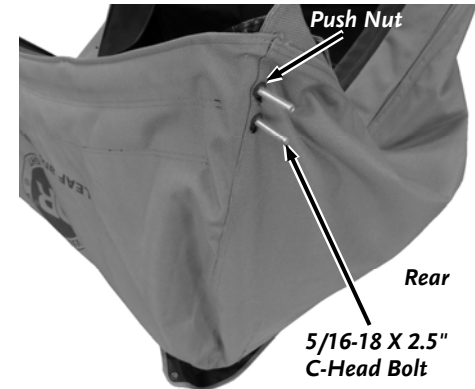


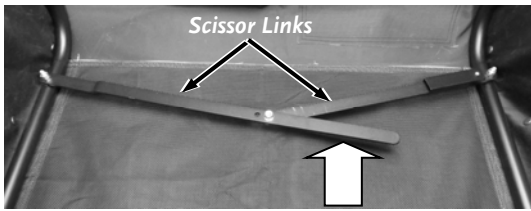
Figure 31

Installing the Top Tube Frame

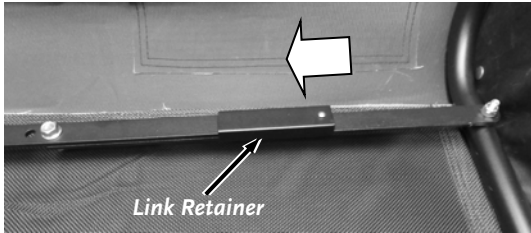
1. Step inside the Enclosure and push the sides of the Tube Frame Assembly fully open (**Figure 32**). Smooth out the Enclosure fabric as necessary.



Figure 32



(a)



(b)

Figure 33

2. Straighten the scissor Links (**Figure 33a**) and push down slightly on them to slide the Link Retainer until it overlaps to lock them in place (**Figure 33b**).
3. The Top Tube Frame has a hole in one end and a slot in the other. Position the Top Tube Frame as shown (**Figure 34**) and slide the end hole onto the interior bolt. Secure with a Knob, just snug (**Figure 35**).
4. Install a Knob partially onto the other interior Bolt so there is about a 1/4" gap (**Figure 36**).
5. Position the Top Tube Frame so it lies against the Tube Frame Assembly. Push down on it as far as possibly by hand. Stand and step (with force) onto the Top Tube Frame to push it the rest of the way to snap the Slot onto the Bolt. Fully tighten the two Knobs, but orient them so they don't poke into the Enclosure fabric.

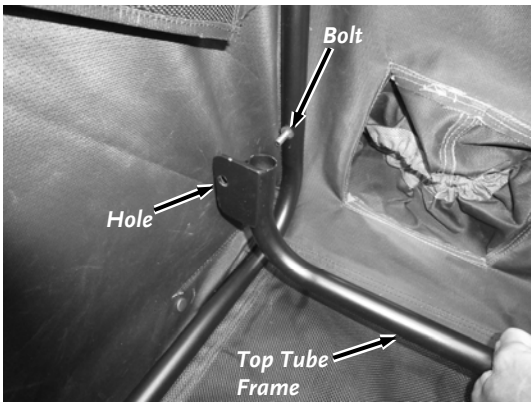


Figure 34



Figure 35

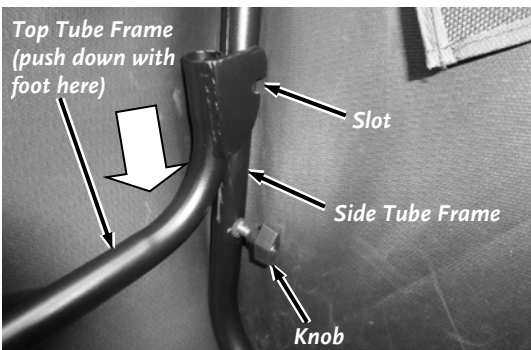


Figure 36

Installing the Tube Frame Handle

1. Position one end of the Tube Frame Handle onto two bolts at one of the rear corners. Take care to orient the handle as shown (**Figure 37**).
2. Slide the Tube Frame Handle onto the other two rear corner bolts. Hold the Enclosure/Tube Frame Assembly with one hand and push the Tube Frame Handle with the other.

Note: The Enclosure is intentionally a tight fit, but if step 2 is too difficult then an alternate hole is provided in the Link to allow a looser fit.

Reposition the Link Bolt:

- a. Slide the Link Retainer (**Figure 38a**) to unlock the Links and open the scissor (**Figure 38b**).
- b. Remove the Bolt and Locknut using two 1/2" Wrenches (**Figure 38c**).
- c. Move the Bolt and Locknut to the alternate hole and tighten. **Note:** Only tighten enough to secure the hardware while still allowing the Links to scissor.
- d. Straighten the Links and slide the Link Retainer to lock them in place.
- e. Finish installing the Tube Frame Handle (**Figure 37**).

3. Loosely secure the Tube Frame handle to the bolts with 4 Knobs (**Figure 39**).

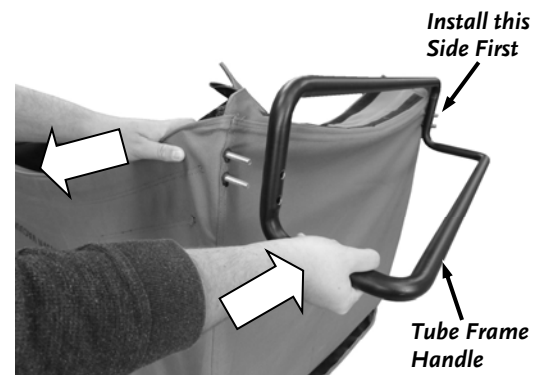
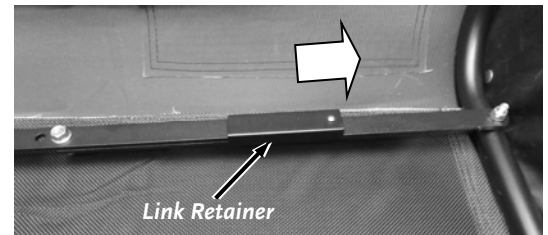
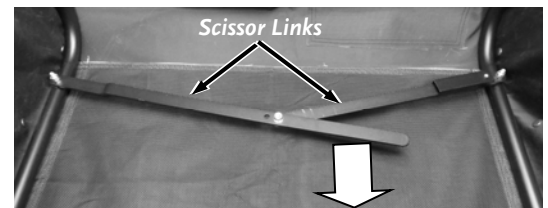


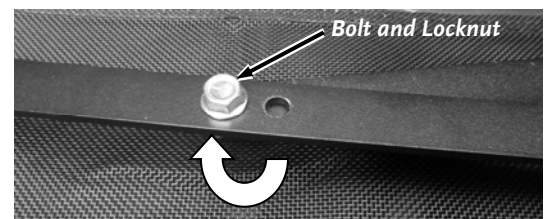
Figure 37



(a)



(b)



(c)

Figure 38

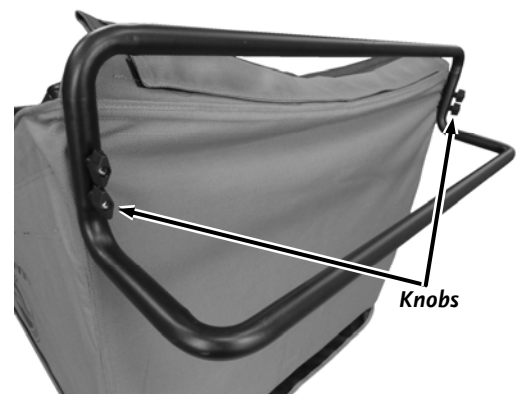


Figure 39

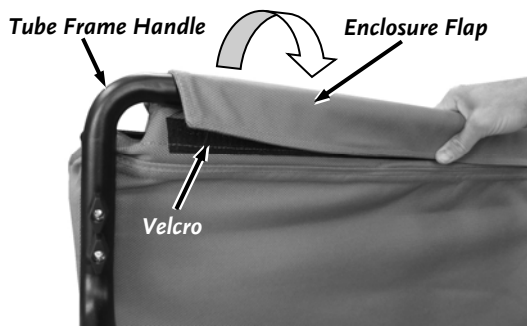


Figure 40

4. Wrap the Enclosure flap tightly around the Tube Frame Handle and secure the Velcro Strips (**Figure 40**).
5. Install the Batten into the Snap End of the Rear Pocket and secure the Snap (**Figure 41**).

Installing the Hinge

1. Position the Hinge with the Hinge Loops pointing up and the flanges pointing forward (**Figure 42**).
2. Slide one end of the Hinge onto two bolts at one of the front corners.
3. Pull the Hinge onto the other two rear corner bolts. Hold the Enclosure/Tube Frame Assembly with one hand and push the Hinge with the other.
4. Loosely secure the 4 corner bolts with Knobs (**Figure 43**).
5. Loosely secure the 4 Retainer bolts with Knobs.

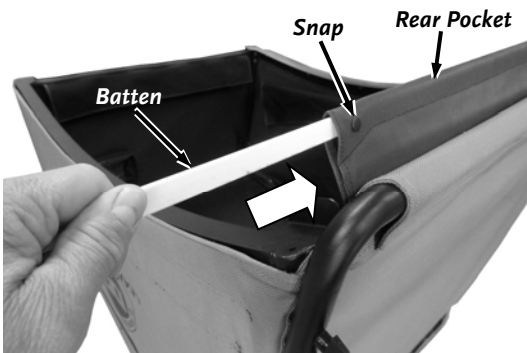


Figure 41

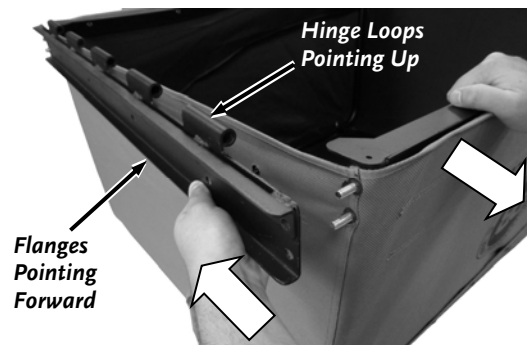


Figure 42

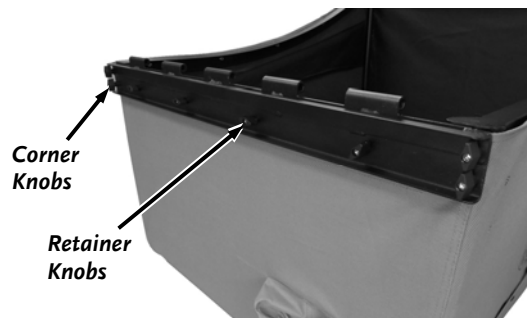


Figure 43

Install the Eyebolt and Tighten Hardware

1. Insert the Eyebolt through hole in the Enclosure at the front and into the hole in the Top Tube Frame (**Figure 44**). Secure with a Knob on the inside.
2. Tighten the 10 Retainer Stud Locknuts using a 7/16" Wrench (**Figure 45**).
3. Fully tighten all Knobs. Make sure the Top Tube Knobs inside the Collector are turned so they do not push into the Enclosure Fabric.

Attaching the Collector to the Cart

1. Turn the Enclosure over so it is right side up.
2. Close the Cart onto the Frame until the Dump Lever holds it down.
3. With the help of another person, place the Collector onto the Cart and align the Hinge Halves (**Figure 46**).
4. Insert the Hinge Pin through the holes in the Hinges (**Figure 46**). The fit may be tight for this initial setup. Use a hammer to tap the Pin in if necessary.

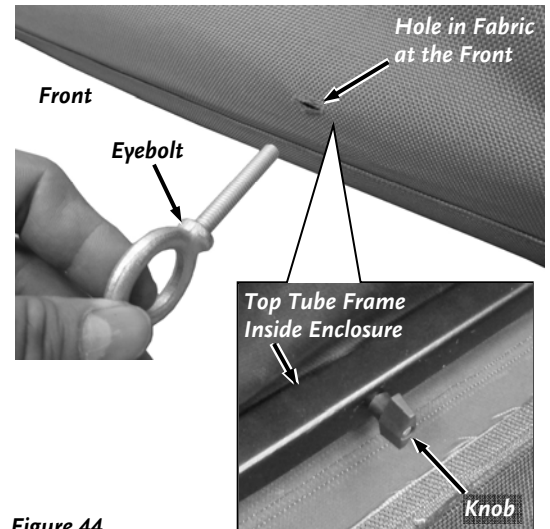


Figure 44



Figure 45

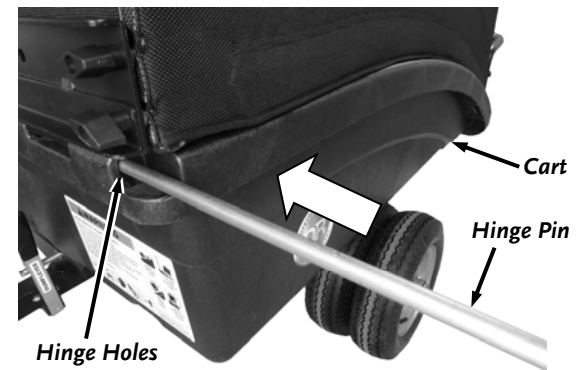


Figure 46

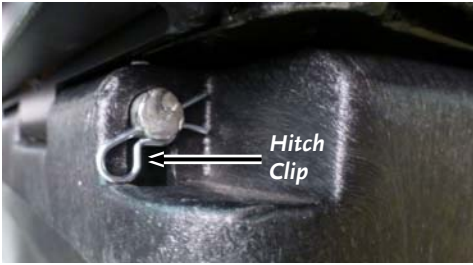


Figure 47

5. Insert Hitch Clips in the holes at the ends of the Pin to secure it (**Figure 47**).
6. Pull the Enclosure Sleeve around the Outlet Chute (**Figure 48**).
7. Attach the Cable Link to the Enclosure Eyebolt.
8. Pull the Dump Lever to raise the Cart then lift the Tube Frame Handle to fully open the Collector.
9. For Pro and Pro-XL models install the second Gas Spring. See “Installing the Gas Springs” section.
10. Close the Collector. See “Dumping” section in Chapter 3.

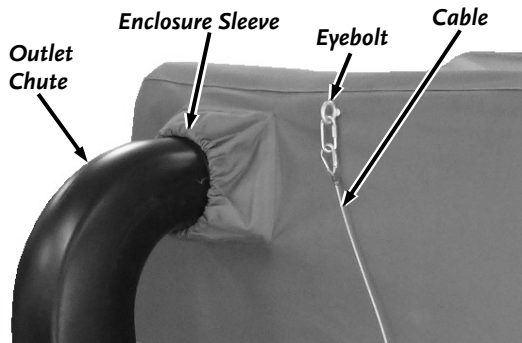


Figure 48

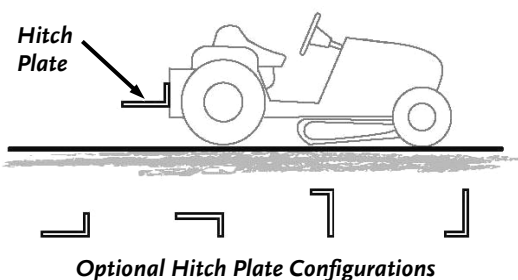


Figure 49

Optional Hitch Plate Configurations

Setting up your Tractor

Hitch Plate Kit Installation (optional)

The DR Leaf and Lawn Vacuum requires a Pin Hitch hole on your Lawn Tractor. DR Power Equipment offers several different Hitch Plate Kits if one is not provided on your Tractor (**Figure 49**). Contact us at www.DRpower.com or call one of our representatives at 1-800-DR-OWNER (376-9637) and they will be happy to assist you.

Deck Adapter Installation

The DR Leaf and Lawn Vacuum requires a Deck Adapter on your Lawn Tractor to route material to its 8" diameter hose.

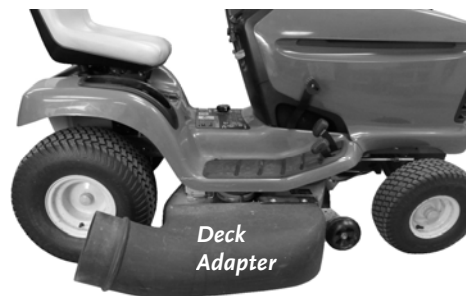


Figure 50

- ⇒ A DR Power Equipment Universal Deck Adapter Kit (for right hand discharge mowers) is available for you to fit to your machine if the tractor manufacturer's Deck Adapter is not available.
- ⇒ A DR Power Equipment Hose Adapter Kit is available to attach to your non DR Power Equipment Deck Adapter to our 8" diameter Hose if needed.

Contact us at www.DRpower.com or call one of our representatives at 1-800-DR-OWNER (376-9637) to order a Universal Deck Adapter Kit or Hose Adapter Kit.

1. Install the Deck Adapter onto your Lawn Tractor (**Figure 50**).
2. If you do not have a DR Deck Adapter and the 8" Hose will not fit your Adapter, order a Kit from us using the contact info above. Install the Hose Adapter Kit onto the end of your Deck Adapter as described in the Kit instructions.

Connecting the DR Leaf and Lawn Vacuum to your Mower

1. Position the back Hitch Plate of your Mower near the Hitch of the Leaf and

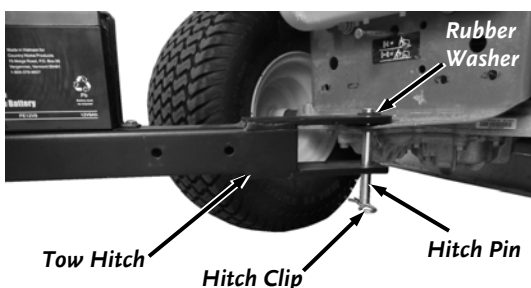


Figure 51

NOTICE

Always raise the Jack (if equipped) prior to towing this equipment. An extended Jack can damage or deform the Jack or Frame if the Jack hits the ground or an obstacle.

1. Lawn Vacuum on level ground (**Figure 51**).
2. Operate the Jack (if equipped) to move the Frame up or down until the Tow Hitch is aligned with the Tractor Hitch Plate.
3. Move the Leaf System into position on the Hitch Plate and install the Hitch Pin with Rubber Washer and Hitch Clip to secure the Tow Hitch to the Mower.
4. For models not equipped with a Jack, lift the Leaf System Hitch onto the Hitch Plate as shown. For models equipped with a Jack, operate the jack handle to raise the Hitch then move the Leaf System Hitch over the Lawn Tractor Hitch Plate.
5. Install the Pin, Rubber Washer, and Hitch Clip as shown.
6. For models with a Jack, raise the Jack Wheel and install the Jack Safety Pin.

Connecting the Inlet Hose to the Deck Adapter

Tools Needed:

- Wire Cutters
- Knife
- 5/16" Wrench

1. Connect the Inlet Hose to the Deck Adapter by sliding the Hose Cuff over the Hose Adapter (**Figure 52**).

Tip: Position the Thumb Screw Clamp toward the Mower so it will not make contact with objects when mowing.

2. Tighten the Thumb Clamp tightly to secure the Hose to the Hose Adapter.
3. Turn the Tractor all the way to the left, while watching the Hose (**Figure 53**). The Hose should not become too taut to twist or damage your Lawn Deck Adapter.
4. Adjust the Rubber Strap on the Hose to keep the Hose off the Ground. If the Strap cannot be positioned sufficiently on the Hose to prevent it from kinking or dragging on the ground, reduce the length of the Hose as follows.

To Shorten the Hose (if needed):

Make sure you do not shorten the Hose too much while following these procedures. Follow the steps closely to ensure the machine is not damaged.

NOTE: The Tractor must be turned fully to the left (**Figure 53**).

- a. Compress the Hose Ribs together as much as you can without stretching the Hose too much (**Figure 54**). If more than 6 Ribs can be easily compressed, the Hose should be shortened.
- b. Loosen the Hose Clamp that secures the Inlet Hose to the Impeller Housing with a 5/16" Wrench and pull the Hose from the Housing (**Figure 55**).
- c. Cut the Hose to the length required using Wire Cutters to cut the black plastic spiral and then cut the clear Hose with the razor knife (**Figure 56**).

NOTE: Make sure you trace the area to cut around the Hose first to ensure you will cut in the proper direction to end up on either side of the cut spiral.

- d. Reinstall the Hose onto the Impeller Housing and tighten the Hose Clamp. If the Tractor can be turned fully to the left, without the Hose becoming too tight (with a slight amount of sag), the Hose is the shortest length possible for your Tractor.

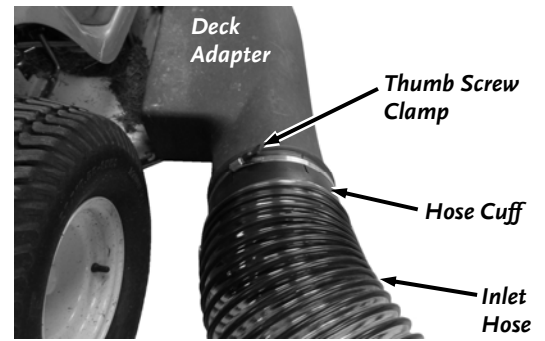


Figure 52

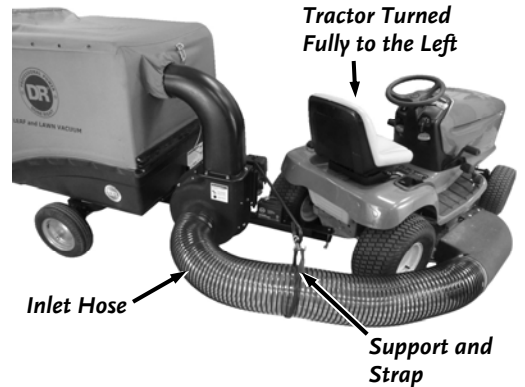


Figure 53

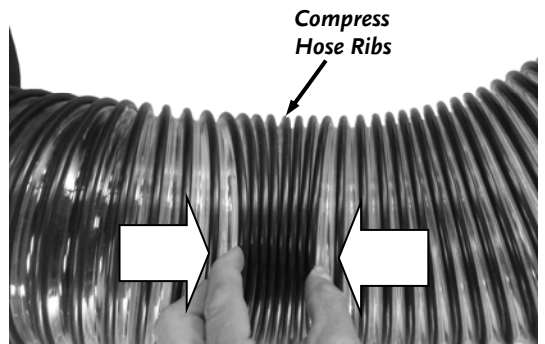


Figure 54

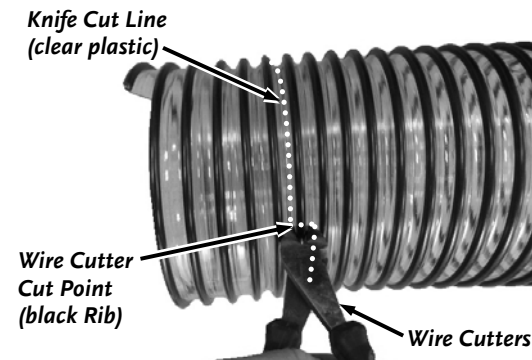


Figure 56

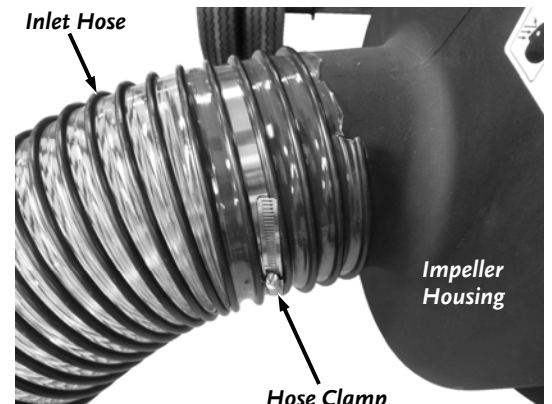


Figure 55

Adding the Engine Oil and Gasoline

Tools and Supplies Needed:

- Flexible Oil Fill Funnel (provided)
- Gas and Oil as recommended below

Tip: To avoid confusion, we recommend leaving the caps on the Fuel and Engine oil Fills and only removing one cap each time when you are ready to pour gasoline or oil into the correct Fill.

Adding Oil

NOTE: Use only the recommended high detergent oil. Other types of oil could cause problems operating your machine. Please refer to your Engine Owner's Manual for detailed oil information.

NOTICE

- You must add oil before starting the engine. This machine is shipped without oil. Traces of oil may be in the reservoir from factory testing, but you must add oil before starting the engine. Fill the reservoir slowly checking the dipstick frequently to avoid overfilling.
- The engine needs to be on a level surface or overfilling could occur which could damage the engine during use.
- To check the oil level, insert the dipstick all the way in, but do not screw it down.

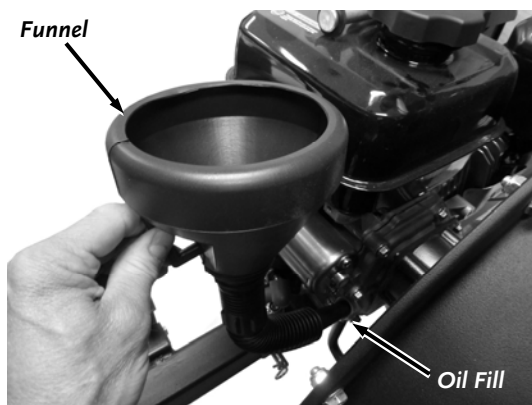


Figure 57

1. Level the Leaf and Lawn Vacuum frame by adjusting the jack height (if equipped) or by propping up the front frame.
2. Release the Dump Lever and open the Collector to gain access to the engine oil dipstick.

Note: A flexible oil fill funnel is provided with your Leaf and Lawn Vac.

3. Remove the dipstick and add an initial quantity of the oil recommended by the Engine Manufacturer (refer to your Engine Owner's Manual for recommended quantities), and wait one minute for the oil to settle (**Figure 57**).
4. Insert the Dipstick, but do not screw it down to check the oil level. Continue adding a few ounces of oil at a time, rechecking the Dipstick until the oil reaches the fill mark. Be careful not to overfill.

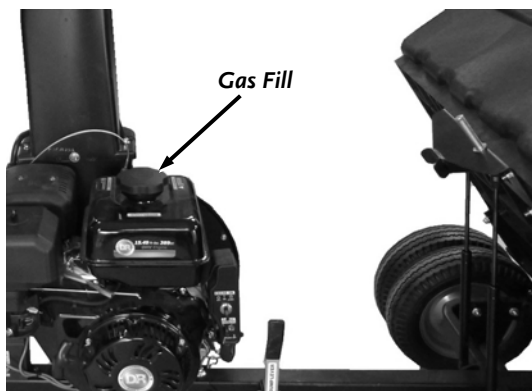


Figure 58

Adding Gasoline

1. Fill the gas tank (**Figure 58**) to within 1-1/2 inches below top of fill neck (to allow for fuel expansion) with fresh, unleaded gas. See your Engine Owner's Manual for more information.

Tire Pressure Check

Tools Needed:

- Tire Pressure Gauge
- Air Compressor

WARNING

Do not over inflate the tires. Inflate to the manufacturers recommended pressure found on the tires.

1. Remove the Valve Stem Protective Cap (**Figure 59**) and check the tire pressure with a Tire Pressure Gauge.
2. Check what the manufacturers recommended pressure is that is stamped on the side of the Tire.
3. If the pressure is too low, add air through the Valve Stem with an air hose.
4. Replace the Valve Stem Protective Cap when finished.

Connecting the Battery Wire (Electric-Starting Models Only)

We ship all Electric-Starting systems with the Negative Battery Terminal Wire disconnected. This prevents the Battery from discharging during shipment. Before using your DR LEAF and LAWN VACUUM, you must connect the Battery Wire.

1. Connect the Negative Wire to the Negative Post on the Battery by sliding the Terminal onto the Battery Post (**Figure 60**).

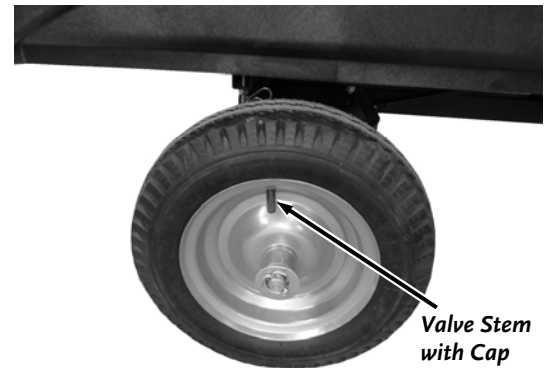


Figure 59

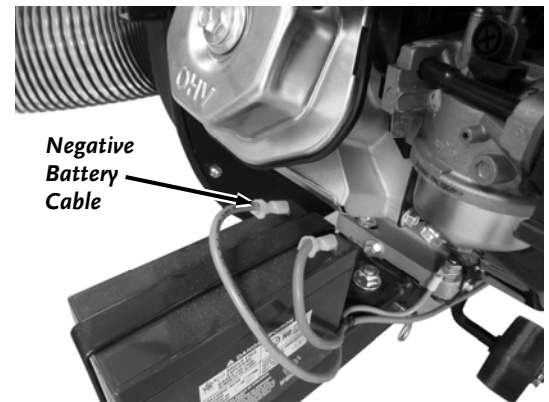


Figure 60

Chapter 3: Operating The DR LEAF AND LAWN VACUUM

It may be helpful to better familiarize yourself with the features of your DR LEAF and LAWN VACUUM by reviewing **Figure 1** in Chapter 2 before beginning the steps outlined in this chapter.

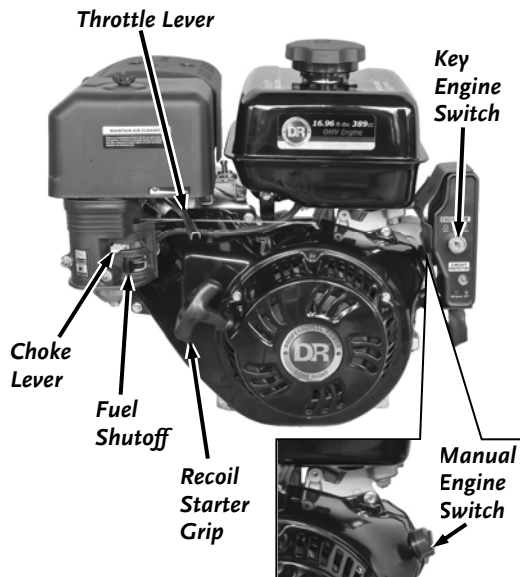


Figure 61

Before Starting the Engine

! WARNING

Inspect the area where you will be working. The site must be free of potentially hazardous obstacles such as stones, metal, or glass. Also, make sure there won't be people or animals in the area around the DR Leaf and Lawn Vacuum.

NOTE: For Electric Start models, the Ignition Switch Keys are temporarily located on the Switch Housing by means of a plastic Tie. Cut the Tie to remove the Keys for use.

! WARNING

- Always refer to the Engine "Operator's Manual" that came with your machine for more detailed Engine operation procedures.

1. Connect the DR LEAF and LAWN VACUUM to your Lawn Tractor (see previous chapter), remove the Safety Hitch Pin from the Jack (if equipped), raise the Jack up and out of the way and replace the Safety Hitch Pin.
2. Check the Engine oil level every time you use the machine (refer to your Engine Operator's Manual).
3. Check the Fuel level and make sure the Fuel Shut-Off Valve is in the OPEN position (refer to your Engine Operator's Manual).

Starting and Stopping the Engine

1. When starting a cold Engine; push the Choke Control lever to the left (CHOKE) and the Throttle Control lever to the far right (rabbit position) (**Figure 61**). If re-starting a warm Engine, leave the Choke in the (RUN) position.
2. **Manual Start** - Grasp the Recoil Starter Handle and slowly pull until you feel resistance, then pull the cord with a smooth accelerating motion to start the engine. One or two pulls usually starts the DR LEAF and LAWN VACUUM.
Electric Start - Turn the Key to START until the Engine starts and then release. The Key will snap back when released and the Engine will continue to run.
3. After the Engine starts, slowly push the Choke Control lever back to the (RUN) position. Wait until the Engine runs smoothly before each Choke adjustment. For best Engine performance, you should operate the Engine with the Throttle in the Fast (Rabbit) position.
4. **- To stop the Manual Start Engine**, move the Throttle to the Slow (Turtle) position allowing the Engine to idle, shut off the gas, and then turn the Engine Switch to "OFF" position.
- To stop the Electric Start Engine, move the Throttle to the Slow (Turtle) position allowing the Engine to idle, shut off the gas, and then turn the Key to OFF.

Operating Safety

! WARNING

- Never put your hands inside the vacuum hose while the engine is running. Always stop the engine and disconnect the spark plug wire before clearing the vacuum hose.
- Do not refuel the engine while it is hot or running.

NOTICE

Use common sense when using the machine. Learn to recognize the change in sounds when overloaded. Stop the engine immediately if the machine becomes jammed to prevent damage to the machine.

Towing the DR LEAF and LAWN VACUUM

1. Make sure you firmly attach the DR LEAF and LAWN VACUUM Hitch to your Lawn Tractor using the Hitch Pin and Hitch Clip (**Figure 62**).
2. If equipped with a Jack, make sure the wheel is in the fully raised position and the Jack Safety Pin is installed to lock it in place.
3. Make sure the Collector Cart is on the Frame with the Dump Lever locked over the Latch Pin (**Figure 63**), the Enclosure Sleeve is over the Outlet Chute (**Figure 64**), and the Inlet Hose Cuff is securely attached to the Deck Adapter on your Tractor (**Figure 65**).

NOTICE

- If equipped, raise the Jack caster wheel as far as it will go and install the locking pin prior to towing this equipment. An extended Jack caster wheel can be damaged or deformed if it hits the ground or an object.
- The DR Leaf and Lawn Vacuum is not equipped for highway use.

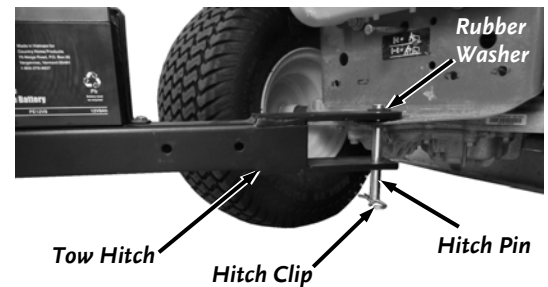


Figure 62

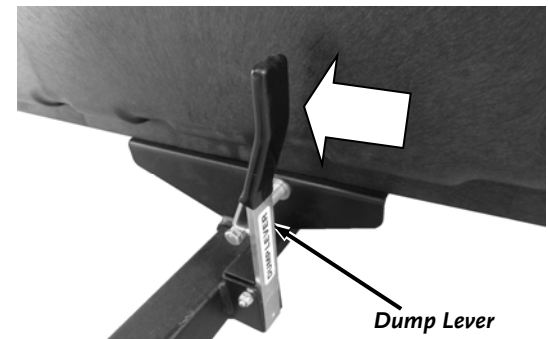


Figure 63

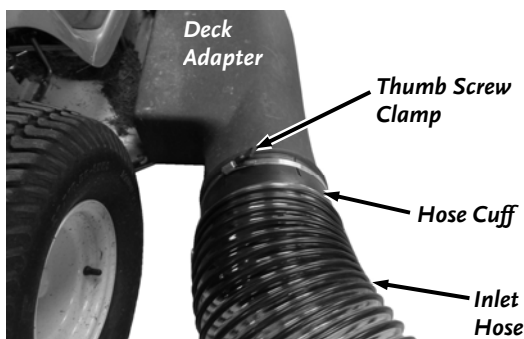


Figure 65

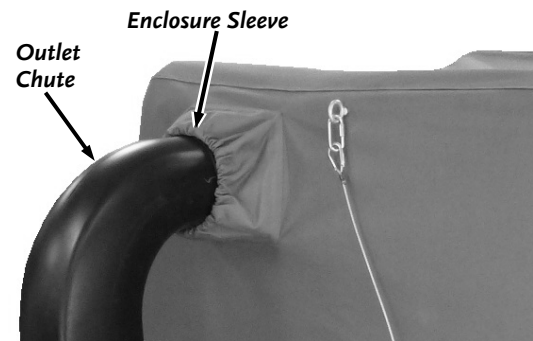


Figure 64

Towing Safety

! WARNING

- Watch out for low branches, overhangs, and guy wires that may catch on top of the collector.
- Never allow anyone to ride in or on the DR Leaf and Lawn Vacuum.
- Obey local, state, and federal regulations when you tow the DR leaf and lawn vacuum across public roads and highways.
- Use caution when backing up your lawn tractor or trying to make tight turns going forward with the DR Leaf and Lawn Vacuum attached. Trying to turn too sharply can cause damage to the hitch and/or the lawn tractor if you hit an obstacle. Go slowly in areas where tight turns are necessary. Straighten out the system before attempting to back up.

Slopes and Uneven Terrain



Figure 66

! WARNING

- Do not use the DR Leaf and Lawn Vacuum on slopes greater than 15 degrees (**Figure 66**). Doing so could result in serious injury to yourself or damage to your machine.
- When operating the DR Leaf and Lawn Vacuum over uneven terrain and slopes, use extreme caution to not tip over the machine. Move slowly, especially with a full load, if the ground has ruts, bumps, and other depressions.
- On a slope, a heavy load will tend to shift. When using your DR Leaf and Lawn Vacuum, keep in mind that loads tend to shift to the downhill side of the collector enclosure. The higher and heavier the load, the greater the chance you may tip over the machine.
- Travel up and down slopes and avoid going across slopes. This is the same recommendation for mowing with your lawn tractor alone.

LEAF and LAWN VACUUM Tips

Note: Make sure the Engine is at full throttle when mowing and vacuuming leaves.

! WARNING

Pick up stones, metal objects, glass, and sticks before vacuuming.

Tips:

- Be careful in corners. Practice in first gear to understand the effects of the machine on your ability to turn sharply. Drive your DR LEAF and LAWN VACUUM into the corner of your property and back out straight to mow as close to the corner as possible. Do not go through ditches.
- The Lawn Deck of your mower may tend to scatter some leaves in front and to the right of the Lawn Deck. Keeping the discharge side toward the remaining leaves will simplify cleanup by avoiding blowing leaves back onto the areas that you already finished. When you need to vacuum with the discharge side toward the completed area of the lawn, overlap the discharge side of the Lawn Deck at least a foot over the already completed section of the lawn.
- To prevent clogging the Deck Adapter, mow grass that is dry and not more 2" at a time. To keep your grass healthy, we recommend cutting less than 1/3 the grass height.
- Run your Lawn Deck with your Tractor at full throttle all the time to maximize the lift from your Lawn Deck and assist your DR LEAF and LAWN VACUUM system.
- Avoid dragging the Hose over curbs, stonewalls, or piles of cut branches. The Hose is tough, but can puncture on sharp objects. This could also crack the Mower Deck Adapter.
- Cut wet grass can be very heavy. Fill the Collector only 3/4 full if the material is very wet. That will make the Leaf System easier to pull and to dump.

Dumping

! WARNING

- Always shut off the tractor engine and the vacuum engine and use caution when dumping the collector load.
- Never back up with the Cart in the dump position.

1. Shut down the Mower and Vacuum Engines and set the Mower Parking Brake when you are at the Dump area.
2. Pull the Dump Lever to tip the Collector back (**Figure 67**). If the Collector doesn't tip back on its own you can lift up on the front of the Cart.
3. Lift up on the Tube Frame Handle to start emptying the Container and then release (**Figure 68**). The Upper Collector will remain raised (**Figure 69**).
4. Drive the Mower forward with the Collector fully open to move the Leaf System away from the pile of debris and allow all debris to slide from the Cart Bed.

! CAUTION

Never drive in reverse with the Collector in the dump position.

5. Pull down on the Tube Frame Handle to close the Enclosure onto the Cart. Ensure that the Rear Flap is positioned inside the Enclosure (**Figure 69**).
 6. Pull down at the front of the Enclosure until the Latch is secured by the Dump Lever (**Figure 70**).
- Pull the Enclosure Sleeve around the Outlet Chute (**Figure 71**).

! CAUTION

Empty the Collector after each use. Do not store the Leaf System with debris in the Collector.

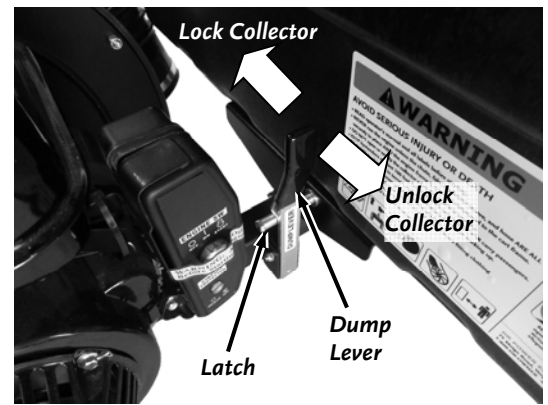


Figure 67



Figure 68



Figure 69

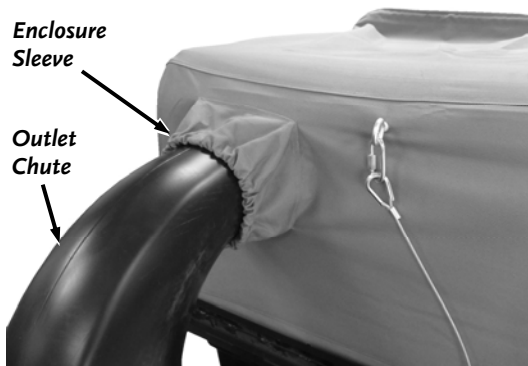


Figure 71

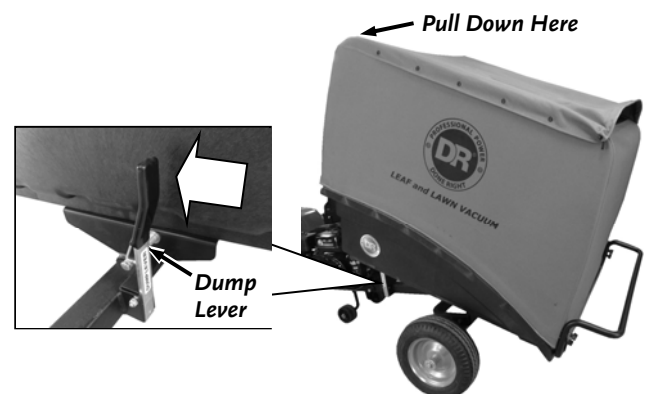


Figure 70

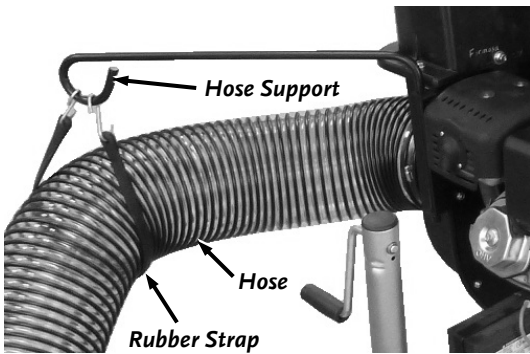


Figure 72

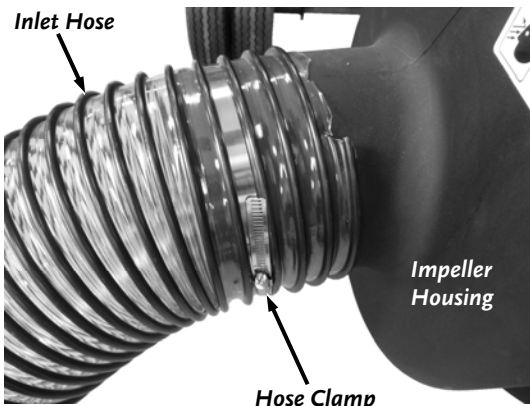


Figure 73

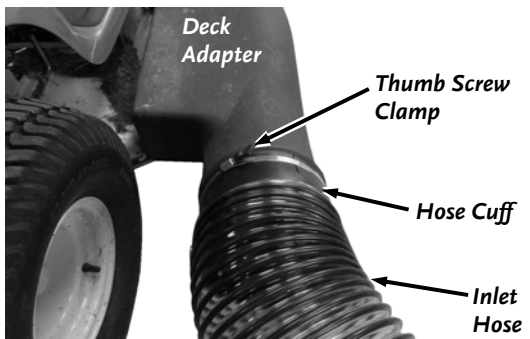


Figure 74

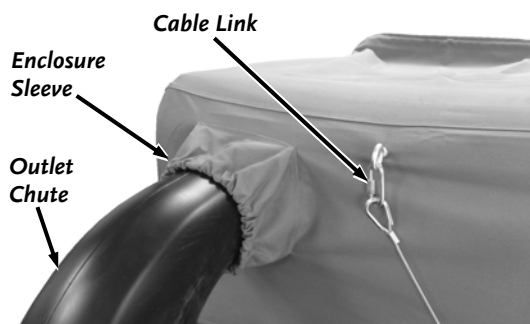


Figure 75

Converting to Cart Trailer Mode

! WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

Tools Needed:

- 5/16" Wrench
- Two 3/4" Wrenches
- Flat Head Screwdriver
- Safety Glasses

1. Remove the Rubber Bungee from the Hose Support (**Figure 72**).
2. Disconnect the Hose from the Impeller Housing using a 5/16" Wrench (**Figure 73**).
3. Turn the Thumb Screw Clamp to disconnect the Hose from the Deck Adapter (**Figure 74**).
4. Unhitch the Cable Link from the Enclosure (**Figure 75**).
5. Pull the Enclosure Sleeve from the Outlet Chute.
6. Remove the Hitch Clip from one end of the Hinge Pin and from the other end pull the Hinge Pin from the Cart/Enclosure Hinge (**Figure 76**).
7. Lift the Enclosure from the Cart and set aside. For larger models this is a good time to have a helper.

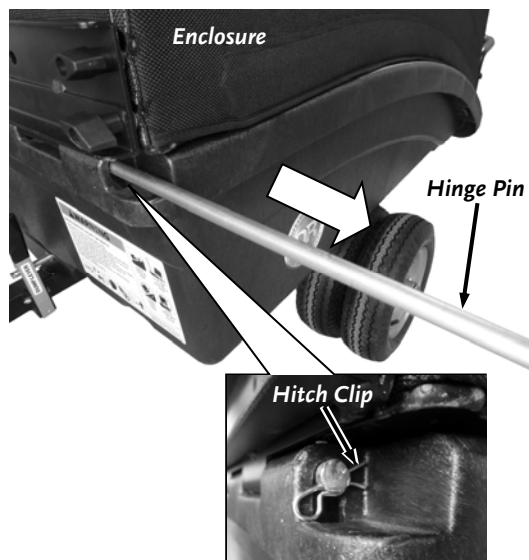


Figure 76

8. Pull the Dump Lever out to raise the Cart Bed (**Figure 77**).

Note: The Gas Spring makes it easier to dump the loads in the Collector. The Premier unit has one Gas Spring and can be left as is for Cart Mode. The Pro and Pro XL use two Gas Springs and the left hand Spring should be removed so closing the Cart is easier in Cart mode.

9. Pull out on one end of the left side Gas Spring to apply pressure (**Figure 78**). Use a Flat Head Screwdriver to pry under the Retaining Clip just enough so the Gas Spring end can be removed. Repeat for the other end of the Spring.

10. Leave the Cart tilted up for the next step.

11. Remove the two sets of Bolts and Locknuts from the Frame using two 3/4" Wrenches (**Figure 79**).

12. If your machine has a Jack you should rotate the Handle to bring the Jack Wheel up as high as it will go. This moves the Tow Hitch closer to the ground to make disconnecting the Power Unit easier.

13. Block the Cart Wheels and have a helper pull on the Outlet Duct to take pressure off the Pins when you perform the next step (**Figure 80**).

14. Remove the front (closest to the Hitch) Hitch Clip and Clevis Pin from the Power Unit Frame (**Figure 79**).

15. Remove the rear Hitch Clip and Clevis Pin from the Power Unit Frame

16. Move the Hitch Pin, Rubber Washer, and Hitch Clip from the Power Unit Hitch to the Pin Hole of the Cart frame to hitch the Cart to your Tractor.

17. Lift up on the Hitch to roll the Power Unit out of the way. Store the Power Unit, Enclosure, Hose and Support in a protected dry area.

18. Push down at the front of the Cart until the Latch is secured by the Dump Lever.

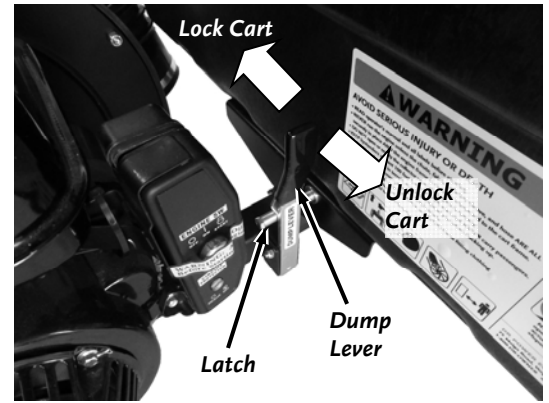


Figure 77

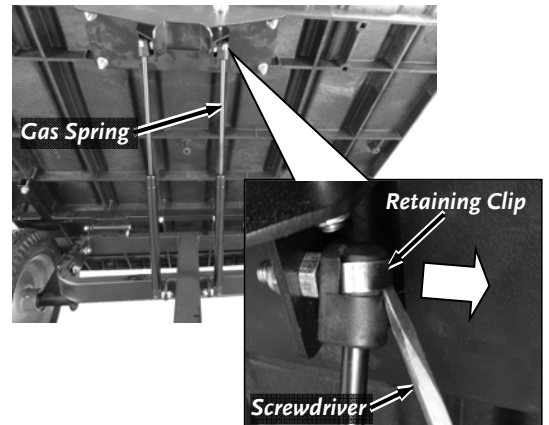


Figure 78



Figure 80

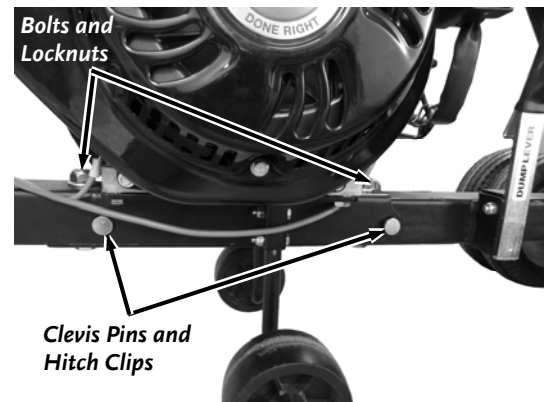


Figure 79

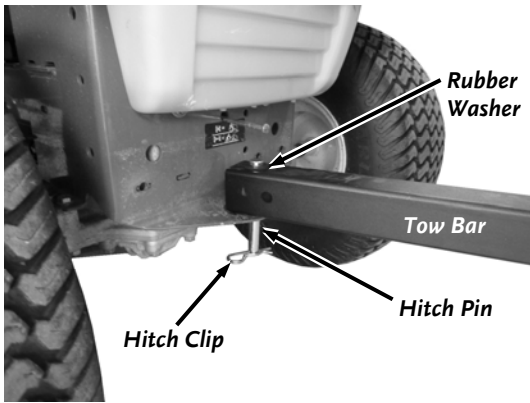


Figure 81

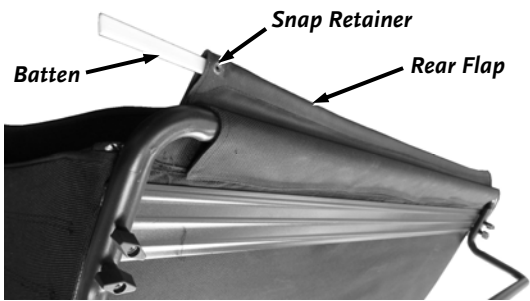


Figure 82

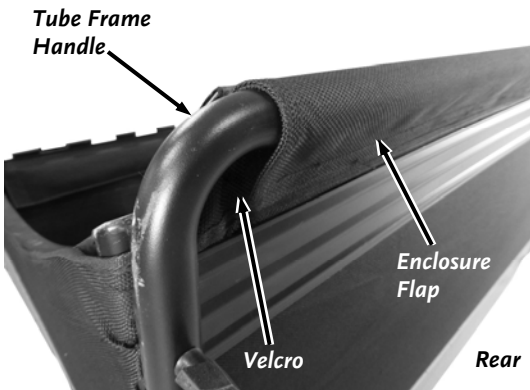


Figure 83

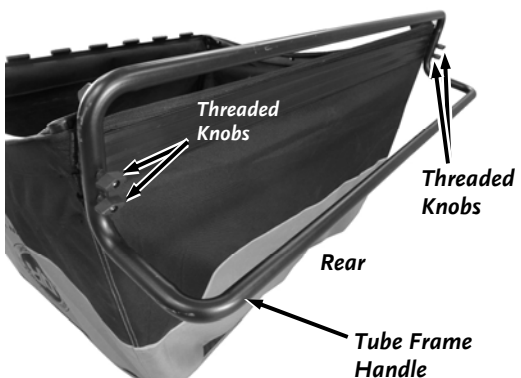


Figure 84

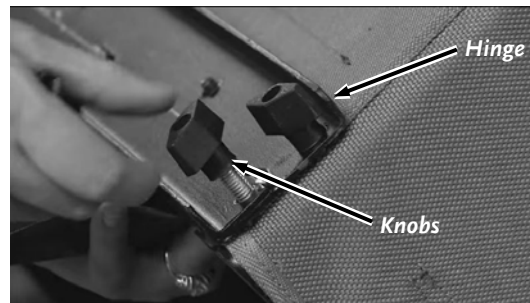


Figure 85

19. Hitch the Tow Bar of the Cart to your Tractor using the Hitch Pin with Rubber Washer and secure using the Hitch Clip (**Figure 81**).

! WARNING

- Never allow anyone to ride in the Cart.
 - Do not tow on slopes greater than 15 degrees.
 - Travel up and down slopes and avoid going across slopes. This is the same recommendation for using your lawn tractor alone.
 - Never backup with the Cart in the dump position.
-
- As you fill the Cart, distribute the load fairly evenly.
 - Do not exceed the weight capacity limit listed in the Specifications section.
 - Drive slower when turning corners and on bumpy terrain so the load does not shift or fall out.
 - Gravel, stone, and sand are very heavy. Never fill the Cart to the top with these items as they would exceed the weight limits.

Collapsing the Upper Collector for Compact Storage

The Upper Collector can be stored fully assembled, but can also be collapsed for more compact storage.

1. Pull the Snap apart at the rear Flap and remove the Batten from the Enclosure (**Figure 82**).
2. Unlatch the Velcro from around the Handle (**Figure 83**).
3. Remove the Knobs from the Handle and lift the Handle off (**Figure 84**). Reinstall the Knobs so they are not lost.
4. Remove the Knobs from the Hinge and lift off the Hinge (**Figure 85**). Reinstall the Knobs so they are not lost.

5. Remove the Knobs from the Top Tube Frame and pull off the Top Tube Frame (**Figure 86**). Reinstall the Knobs so they are not lost.
6. Slide the Link Retainer and scissor the Links partially closed (**Figure 87**).
7. Prop the Upper Collector upright then standing to the side, tuck in the front and back Enclosure fabric (**Figure 88**).
8. Fully collapse by pulling the sides together. Lift and store. Also store the Hinge, Handle, Top Tube Frame and Batten with the Enclosure.

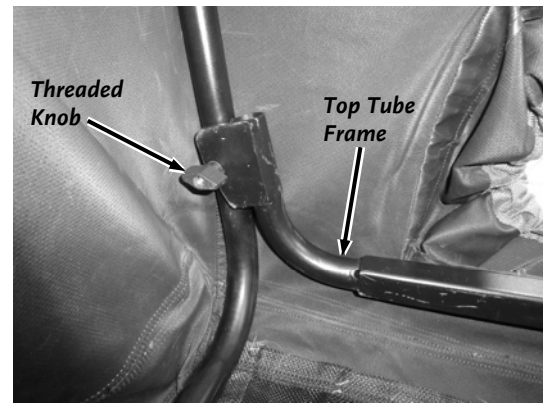


Figure 86

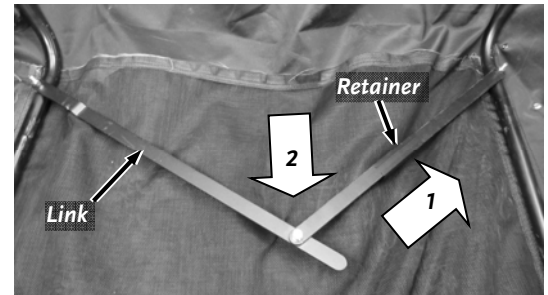


Figure 87



Figure 88

Chapter 4: Maintaining The DR LEAF and LAWN VACUUM

Regular maintenance is the way to ensure the best performance and long life of your machine. Please refer to this manual and the engine manufacturer's owner's manual for maintenance procedures. Service intervals listed in the checklist below supersede those listed in the engine manufacturer's owner's manual.

! WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	AFTER EACH USE	EVERY 25 HOURS	EVERY 100 HOURS
Check Engine Oil Level	▲			
Check General Equipment Condition, e.g. tight nuts, bolts, welds, etc.	▲			
Check Tire Pressure	▲			
Check Hose for wear, holes, or abraded areas.	▲			
Clean Engine Exterior & Cooling Fins	▲			
Clean Engine Air Filters, replace as needed*	▲			
Empty the Collector		▲		
Check Battery Charge			▲	
Change Engine Oil	1 st time 5 hours		▲	
Check Exterior of Impeller Housing for Wear			▲	
Lubricate Wheel Bearings				▲
Replace Spark Plug				▲
Replace Engine Air Filters				▲

*Replace the filter if excess oil is found on the foam element or any oil is found in the paper element.

Lubrication

Your DR LEAF and LAWN VACUUM was lubricated at the Factory. The operator needs to provide Engine lubrication and lubricate the Wheels periodically.

! WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.



Tools and Supplies Needed:

- Grease gun with Multipurpose Automotive Grease
- Clean Rags

LUBRICATE WHEEL BEARINGS:

1. Clean the Grease Fitting with a clean Rag (**Figure 89**).
2. Lubricate each Wheel with Multipurpose Automotive Grease using a grease gun on the Grease Fitting.

Figure 89

REMOVING AND REPLACING THE ENGINE OIL

Refer to page 26 as well as to the Engine Operator Manual for Engine Procedures for removing and replacing the oil.

NOTE: Be sure to use environmentally safe disposal procedures in the disposing of the used oil.

Replacing the Wheels

! WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

Tools Needed:

- Locking Pliers or Needle Nose Pliers.
- Jack and Stand

1. Jack up the Frame and support it with Blocks or a Jack Stand so the Wheel is off the ground.
2. Remove the Cotter Pin with Locking Pliers or Needle Nose Pliers (**Figure 90**).
3. Remove the Large Washer and Wheel.
4. Install the new Wheel.
5. Install the Large Washer and secure with the Cotter Pin (bend the ends of the Cotter Pin to lock it onto the Axle).

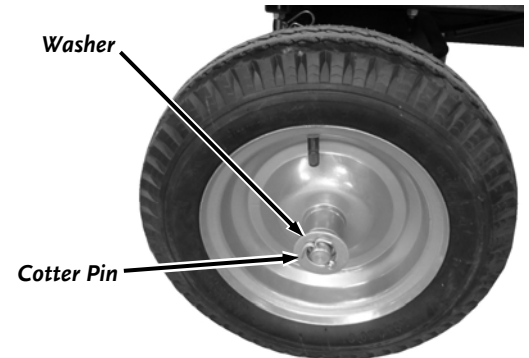


Figure 90

Impeller Maintenance

An Impeller Tool is provided in case you ever need to remove the Impeller for service. Simply remove the Bolt and Washer holding the Impeller onto the Engine Shaft and thread the Impeller Tool into the Impeller until it releases from the Engine (**Figure 91**).

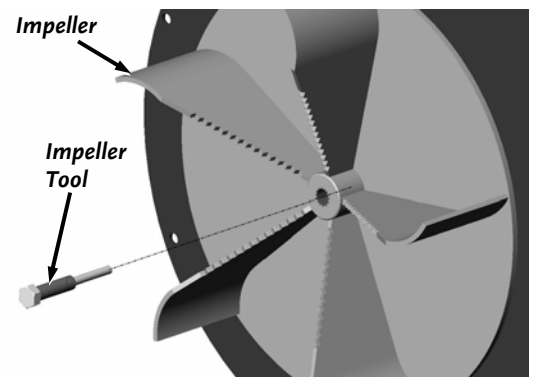


Figure 91

Battery Care (For Electric-Starting Models Only)

Proper care can extend the life of a Battery. Follow these recommendations to ensure your Battery's best performance and long life:

- Do not allow the Battery charge to get too low. If the machine is not used, charge the Battery every 4 – 6 weeks. Operate the engine for at least 45 minutes to maintain proper Battery charge.
- Store an unused Battery in a dry area that does not freeze.
- Do not charge an already charged Battery. In theory, you cannot overcharge our Battery with a trickle charger; however, when a Battery is fully charged and the charger is still on, it generates heat that could be harmful to the Battery. A fully charged Battery will read 12V-13.2V with a voltmeter.
- Do not continue to crank your Engine when the Battery charge is low.

Charging the Battery

⚠ WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

NOTICE

When you are finished charging the battery, disconnect the charger from the outlet first, then disconnect the battery charger wires from the battery. If you leave the battery charger wires connected to the battery, the battery will discharge itself back into the charger.

Operate the vacuum Engine for at least 45 minutes to maintain proper Battery charge. If the Battery loses its charge, you will need to use a trickle charger (like the DR Battery Charger) to recharge it. The Charger should have an output of 12 volts at no more than 2 amps.

- At 1 amp the Battery may need to be charged for as long as 48 hours.
- At 2 amps, the Battery may need to be charged for as long as 24 hours.

NOTE: *Using the Recoil Starter and then running the Engine will not recharge a dead or significantly discharged Battery.*

To connect a Battery Charger to your DR LEAF and LAWN VACUUM, follow the steps listed below.

1. Attach the Black (-) alligator clipped wire from the Charger Adapter to the Negative (-) terminal of the Battery, then attach the Red (+) alligator clipped wire to the Positive (+) Battery terminal.
2. Plug the Charger into a standard wall outlet.
 - Typically, the Battery takes between 6 and 8 hours to fully charge. The Battery does not have a “memory”; so don't worry about overcharging the Battery or charging it too often.
 - You can charge the Battery many times. The Battery lasts longer if you charge it before it is fully drained. Keep it fully charged and at room temperature when not using your DR LEAF and LAWN VACUUM.
 - If the Battery does not hold its charge for very long under normal conditions or it simply won't hold a charge, then replace it. You can purchase replacement Batteries directly from us. To install your new Battery, follow the directions below.

Replacing the Battery

Tools Needed:

- Two 7/16" Wrenches
- Wire Cutters

1. Disconnect the Battery Terminals (**Figure 92**).
2. Cut the Cable Tie that securing the Wires to the Clamp using Wire Cutters.
3. Remove the Bolts and Locknuts that secure the Battery Clamp using two 7/16" Wrenches.
4. Remove the Clamp and the dead Battery.
5. Install the new Battery.
6. Install the Battery Clamp and secure with the Bolts and Locknuts using two 7/16" Wrenches.
7. Attach the Battery Terminals. Green Wire to negative black Terminal and Red Wire to positive red Terminal.

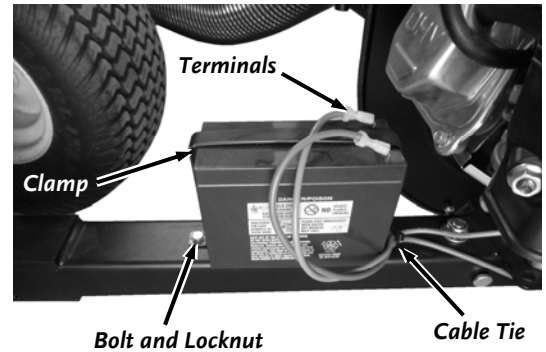


Figure 92

Disposing of the Battery Responsibly (Electric-Start Models)

The Battery is a sealed lead-acid Battery. Recycle or dispose of it in an environmentally sound way.

- Do not dispose of a lead-acid Battery in a fire; the Battery may explode or leak.
- Do not dispose of a lead-acid Battery in your regular, household trash. Law in most areas prohibits incinerating, disposing in a landfill, or mixing a sealed lead-acid Battery with household trash.

Recycling a Used Battery

Please dispose of your used Batteries responsibly by recycling them. Call your local Solid Waste Management District or your local waste handler to locate the collection site nearest you. Some collection sites recycle Batteries year-round; others collect them periodically.

You can also visit the Web site of Earth 911 for more information [www.earth911.org]. Once there, in the appropriate box, type in what it is you are recycling and also type your zip code. The site will provide a list of recycling centers located near you.

For a fee, you can recycle your Batteries with the International Metals Reclamation Company. Visit them at www.inmetco.com and click Services; or contact them at:

INMETCO
PO Box 720
245 Portersville Road
Ellwood City, PA 16117
(724) 758-2825; fax (724) 758-2845

To learn more about hazardous waste recycling, visit the Web site for Battery Council International [www.batterycouncil.org] or for the Environmental Protection Agency [www.epa.gov].

Chapter 5: Troubleshooting

Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions. If you continue to experience problems, contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) for support.

WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the Mower and Leaf and Lawn Vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the Spark Plug Wire of the Leaf and Lawn Vacuum.

Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE
<i>Engine recoil will not pull out or is difficult to pull.</i>	<ul style="list-style-type: none"> ⇒ Check the Engine oil level, the Engine may be seized. See your engine owner's manual. ⇒ There may be an oil compression lock in the cylinder. Take out the Spark Plug; hold a rag over the Spark Plug hole and pull the Recoil Cord several times to blow out any oil in the cylinder. Wipe off the Spark Plug and reinstall it. ⇒ The Recoil may be broken or jammed. Visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
<p><i>The Engine won't start manually.</i></p> <p><i>(Please refer to the Engine Owner's Manual for engine-specific procedures.)</i></p>	<ul style="list-style-type: none"> ⇒ Check that the Spark Plug Wire is attached. ⇒ Check the oil and gas level. See your engine owner's manual. ⇒ You should be using fresh, clean gas. If the gas is old, change it. Use a fuel stabilizer if you keep gas longer than one month. ⇒ Check the Throttle adjustment and travel. See your engine owner's manual. ⇒ The Spark Plug should be clean. If the Spark Plug is dirty or cracked, change it. If it's oily, leave it out, hold a rag over the Plug hole and pull the Recoil Cord several times to blow out any oil in the cylinder, then wipe off the Plug and reinstall it. ⇒ If the Engine still won't start, visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
<p><i>The Engine won't start using Electric-Start.</i></p> <p><i>(Please refer to the Engine Owner's Manual for engine-specific procedures.)</i></p>	<ul style="list-style-type: none"> ⇒ Check the previous section (Manual Starting) for possible causes. ⇒ Check the wire connections—especially the ground connection, the green wire coming from the Battery, where it connects to the Engine. ⇒ The Battery should be charged. Check the voltage yourself or at a gas station. If it's low, charge it with a 12-volt, 1 to 2 Amp trickle charger. If you don't use your machine for at least 45 minutes at a time, the Battery may need to be periodically charged. See the Battery Care section in Chapter 4. ⇒ If your Battery is charged and your DR still won't start, visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
<i>Engine smokes.</i>	<ul style="list-style-type: none"> ⇒ Check the oil level and adjust as needed. ⇒ You may be operating the machine on too great an incline. See Slopes on page 24. ⇒ Check the Air Filter and clean or replace if needed. ⇒ You may be using the wrong oil—too light for the temperature. Refer to your Engine Owner's Manual for detailed information. ⇒ Clean the Engine cooling fins and the carburetor housing if they are dirty. ⇒ If the Engine still smokes, visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Troubleshooting Table (Continued)

WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

SYMPTOM	POSSIBLE CAUSE
<p><i>The Engine lacks power or is not running smoothly.</i></p> <p><i>(Please refer to the Engine Owner's Manual for engine-specific procedures.)</i></p>	<ul style="list-style-type: none"> ⇒ Check the Throttle travel. See your engine owner's manual. ⇒ The Choke should be pushed all the way to the right (RUN). See your engine owner's manual. ⇒ Check to see if the Air Filter is clean. If it's dirty, change it following the procedure in the Engine Owner's Manual. ⇒ The Spark Plug should be clean. If the Spark Plug is dirty or cracked, change it. If it's oily, leave it out, hold a rag over the Plug hole and pull the Recoil Cord several times to blow out any oil in the cylinder, then wipe off the Plug and reinsert it. ⇒ You should be using fresh, clean gas. If the gas is old, change it. Use a fuel stabilizer if you keep gas longer than one month. ⇒ Check and make sure the Engine has the right amount of clean oil. If it's dirty, change it following the procedure in your engine owner's manual. ⇒ If your Engine still lacks power, visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
<p><i>Wheels tracking left or right while being towed.</i></p>	<ul style="list-style-type: none"> ⇒ Check the tire pressure. Refer to the Tire manufacturers recommended pressure on the side of the Tire and adjust pressure as needed.
<p><i>Lawn Deck is not vacuuming well.</i></p>	<ul style="list-style-type: none"> ⇒ Be sure the Leaf and Lawn Vacuum Engine is running at full throttle. ⇒ Be sure the Lawn Deck Blades are engaged and running at full throttle. ⇒ Be sure the Deck is set at the proper mowing height. ⇒ Use 1st or 2nd gear on your Lawn Tractor for best results. ⇒ Turn off the Lawn Tractor Engine and Vacuum Engine and check the Deck Adapter for clogs. ⇒ Look for clogs along the Hose. Shake the Hose to loosen and free any clog. ⇒ Turn off the Lawn Tractor Engine and Leaf and Lawn Vacuum Engine and disconnect the Leaf and Lawn Vacuum Engine Spark Plug Wire. Check for clogs in the Outlet Duct and Inlet Hose. ⇒ If your Lawn Deck still is not vacuuming properly, visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
<p><i>Leaves or grass come out of the back of the Enclosure.</i></p>	<ul style="list-style-type: none"> ⇒ Check that the rear Flap is tucked into the Enclosure.
<p><i>Leaves or grass come out where the Outlet Chute and Enclosure meet.</i></p>	<ul style="list-style-type: none"> ⇒ Be sure the Enclosure Sleeve is fully installed around the Outlet Duct. ⇒ Try to rock the Impeller Housing toward and away from the Enclosure. If it is loose then you will need to tighten the Bolts located behind the Impeller.
<p><i>The Collector does not fully latch</i></p>	<ul style="list-style-type: none"> ⇒ Pull the Collector down fairly rapidly against the latch. If the latch does not return fully, move it closed manually, loosen the bolt going through the latch pin and retighten the bolt.

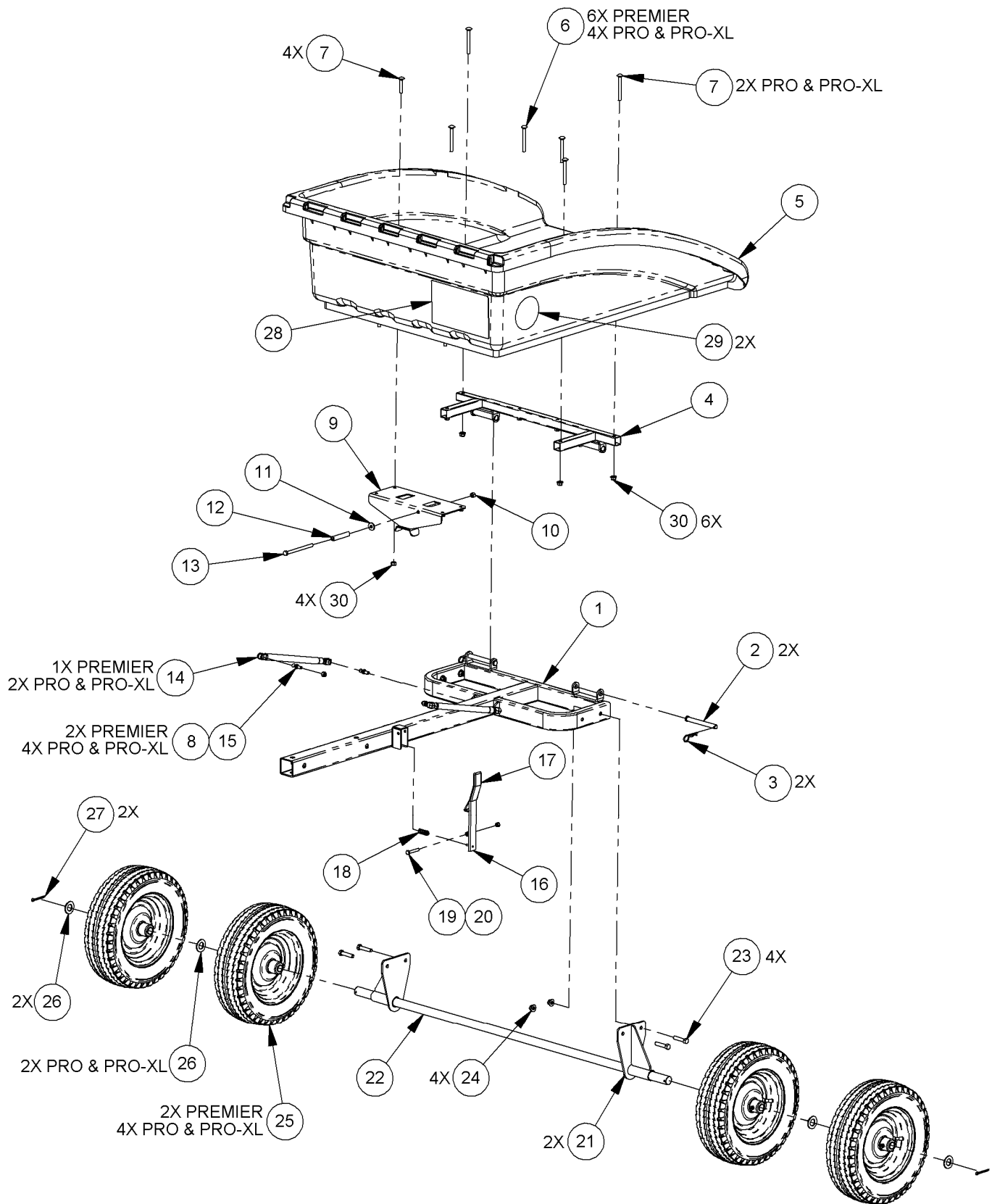
Chapter 6: Parts Lists and Schematic Diagrams

Parts List – FRAME AND CART ASSEMBLY

NOTE: Part numbers listed are available through DR Power Equipment.

<u>Ref#</u>	<u>Part#</u>	<u>Description</u>	<u>Ref#</u>	<u>Part#</u>	<u>Description</u>
1	33799	Frame, Rear	16	35443	Handle W/Grip & Label, Latch
2	18737	Pin, Clevis, 1/2" OD X 4.5" LG	17	11024	Grip, Latch Handle
3	16003	Pin, Hair, 1/2" to 9/16", .12" Wire	18	33803	Spring, C, .545" ID X .055" Wire X 2.2" Long
4	34241	Support, Pivot, Cart Bed, Premier	19	11148	Bolt, HCS, 1/4-20 X 1.75", GR5, ZP
	34257	Support, Pivot, Cart Bed, Pro & XL	20	11073	Nut, Nylon Lock, 1/4-20, ZP
5	35439	Cart Bed W/Labels, Premier	21	33802	Bracket, Axle
	35440	Cart Bed W/Labels, Pro & XL	22	34256	Axle, Pro & XL
6	35034	Bolt, Carr, 5/16-18 X 3", GR5, ZP		33801	Axle, Premier
7	35033	Bolt, Carr, 5/16-18 X 1.75", GR5, ZP	23	12334	Bolt, HCS, 3/8-16 X 1.75", GR5, ZP
8	33332	Nut, Nylon Lock, Flanged, 5/16-18	24	33333	Nut, Nylon Lock, Flanged, 3/8-16
9	34242	Support, Cart Bed	25	33794	Wheel & Tire, 14 X 5.3/4.50-8
10	11076	Nut, Nylon Lock, 5/16-18, ZP	26	35039	Washer, 1.06" ID X 2" OD X .13", ZP
11	33804	Washer, .344" ID X .88" OD X .12"	27	12685	Pin, Cotter, 3/16" X 1.5"
12	33805	Spacer, .327" ID X .51" OD X 2.69"	28	34279	Label, Operating
13	18980	Bolt, HCS, 5/16-18 X 4.50", GR2, ZP	29	34140	Label, DR Logo, 4" Silver
14	33793	Gas Spring, 500-300 mm, 150 Lb	30	10668	Nut, Flange, 5/16-18
15	33798	Stud, Ball, 10 mm			

Schematic – FRAME AND CART ASSEMBLY

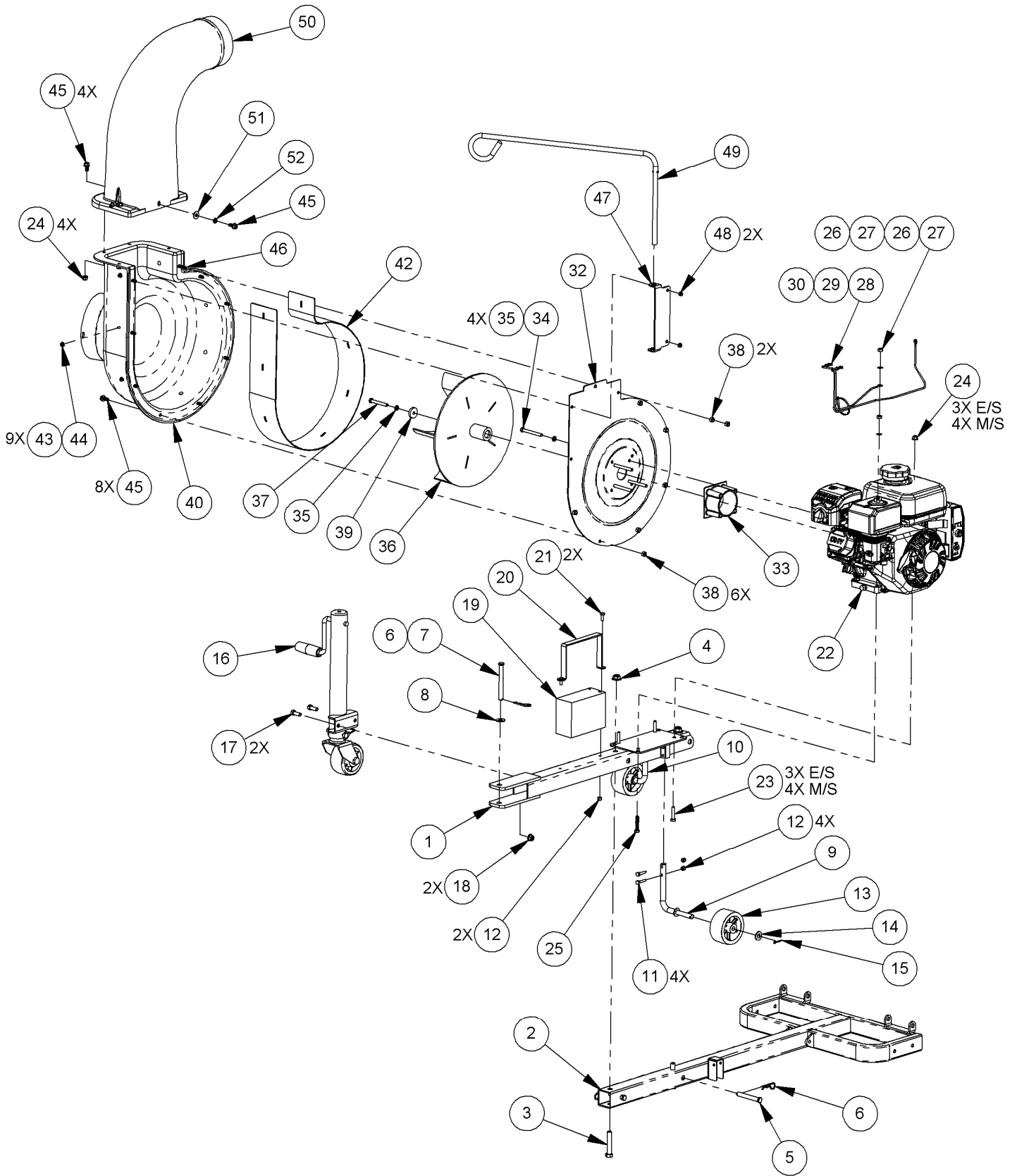


Parts List – POWER UNIT ASSEMBLY

NOTE: Part numbers listed are available through DR Power Equipment.

<u>Ref#</u>	<u>Part#</u>	<u>Description</u>	<u>Ref#</u>	<u>Part#</u>	<u>Description</u>
1	33800	Frame, Front	25	15045	Bolt, HCS, 5/16-18 X 1-3/4", GR5, ZP (Premier E/S)
2	33799	Frame, Rear		12334	Bolt, HCS, 3/8-16 X 1.75", GR5, ZP (Pro & XL E/S)
3	26556	Bolt, HCS, 1/2-13 X 2.75", GR5, ZP	26	11250	Washer, Lock, 5/16", Ext Tooth (Premier E/S)
4	33335	Nut, Nylon Lock, Flanged, 1/2-13		35040	Washer, Lock, 3/8", Ext Tooth (Pro & XL E/S)
5	21154	Pin, Clevis, 1/2" OD X 3.5" LG	27	11069	Nut, Hex, 5/16-18, GR2, ZP (Premier E/S)
6	16003	Pin, Hair, 1/2" to 9/16"		12383	Nut, Hex, 3/8-16, ZP (Pro & XL E/S)
7	18737	Pin, Clevis, 1/2" OD X 4.5" LG	28	34275	Wire, Battery Ground
8	18967	Washer, Neoprene, .49" Id X 1.06" OD	29	34276	Wire, Battery Positive
9	34249	Leg, Engine Support	30	11214	Cable Tie, 7-1/2" Long
10	34250	Leg, Engine Support, Short (Premier)	31	29487	Boot, Rubber
	34249	Leg, Engine Support (Pro & XL)	32	34235	Housing, Impeller, Engine Side
11	11468	Bolt, HHCS, 1/4-20 X 2.0", GR2, ZP	33	34240	Spacer, Impeller (Premier)
12	11073	Nut, Nylon Lock, 1/4-20, ZP		34239	Spacer, Impeller (Pro & XL)
13	34277	Wheel, 4"	34	35031	Bolt, HCS, 5/16-24 X 3.0", GR8, YZP (Premier)
14	23499	Washer, SAE Flat, 1/2", ZP		35041	Bolt, HCS, 5/16-24 X 2.75", ZP (Pro & XL)
15	23500	Pin, Cotter, 7/64" X 1", ZP	35	35032	Washer, Lock, 5/16", GR8 Split, ZP
16	34269	Jack, Trailer	36	34236	Impeller
17	11152	Bolt, HCS, .3/8-16 X 1", GR5, ZP	37	35035	Bolt, HCS, 5/16-24 X 2.5", GR8, YZP
18	33333	Nut, Nylon Lock, Flanged, 3/8-16	38	11076	Nut, Nylon Lock, 5/16-18, ZP
19	13447	Battery, 12V, Ah	39	35036	Washer, Flat, .344" X 1.25" X .25", ZP
20	24230	Strap, Battery	40	35441	Housing W/Label, Impeller
21	11983	Bolt, HCS, 1/4-20 X 3/4", GR2, ZP	41	34278	Label, Warning, Chute & Hose
22	35434	Engine W/Label, DR 9.59 TQ, E/S, 50st/CE	42	34238	Liner, Housing, Impeller
	35436	Engine W/Label, DR 13.28 TQ, E/S, 50st/CE	43	14451	Bolt, Carr, 10-24 X .62", ZP
	35438	Engine W/Label, DR 16.96 TQ, E/S, 50st/CE	44	35038	Nut, Nylon Lock, Flange, 10-24, ZP
	35433	Engine W/Label, DR 9.59 TQ, M/S, 50st/CE	45	35023	Bolt, Hex, Flange, 5/16-18 X .75"
	35435	Engine W/Label, DR 13.28 TQ, M/S, 50st/CE	46	35024	Bolt, HCS, 5/16-18 X 1.25", GR5, ZP
	35437	Engine W/Label, DR 16.96 TQ, M/S, 50st/CE	47	34243	Bracket, Rod, Hose
23	13443	Bolt, HCS, 5/16-18 X 1-1/2, GR5, ZP (Premier)	48	18755	Nut, Nylon Lock, 5/16-18, LP
	11985	Bolt, HCS, 3/8-16 X 1.5", GR5, ZP (Pro & XL)	49	34244	Rod, Support, Hose
24	33332	Nut, Nylon Lock, Flanged, 5/16-18 (Premier)	50	34245	Chute, Impeller Outlet, Premier
	33333	Nut, Nylon Lock, Flanged, 3/8-16 (Pro & XL)		34246	Chute, Impeller Outlet, Pro & XL
			51	11241	Washer, Flat, 5/16", USS, ZP
			52	11243	Washer, Lock, Split, 5/16"
			Not Shown		
				37036	Funnel, Oil, Flexible

Schematic – POWER UNIT ASSEMBLY

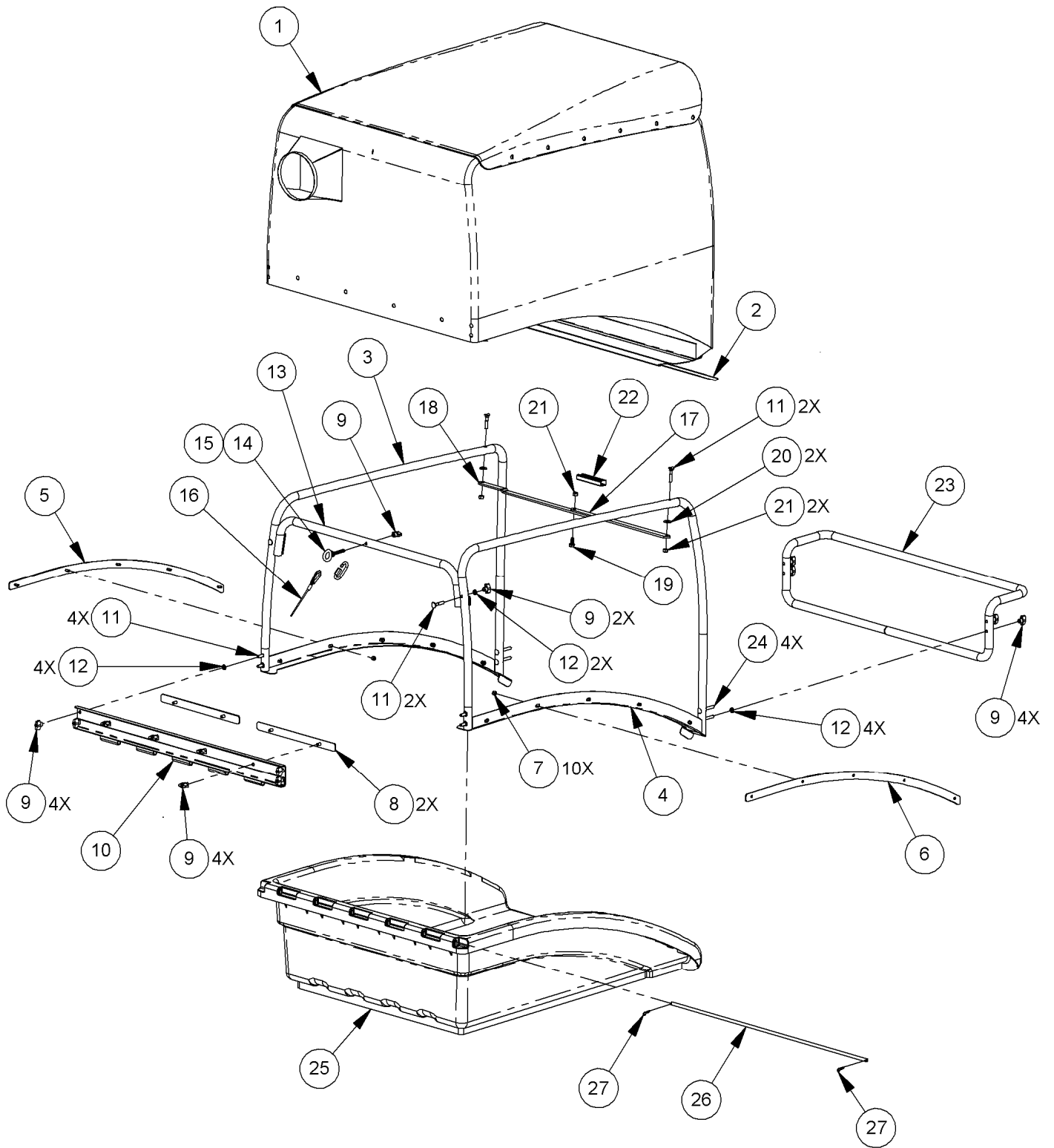


Parts List – COLLECTOR ASSEMBLY

NOTE: Part numbers listed are available through DR Power Equipment.

<u>Ref#</u>	<u>Part#</u>	<u>Description</u>	<u>Ref#</u>	<u>Part#</u>	<u>Description</u>
1	36117	Enclosure, Fabric, Premier	14	35028	Eyebolt, 5/16-18 X 2", Forged, ZP
	36118	Enclosure, Fabric, Pro & XL	15	33443	Link, Chain, Threaded Connector
2	36119	Batten, FRP, .58" X .12" X 28.5", Premier	16	34273	Cable, Collector, Premier
	36120	Batten, FRP, .58" X .12" X 40", Pro & XL		34274	Cable, Collector, Pro & XL
3	33777	Tube Frame, Collector, RH, Premier	17	33782	Link, Flat, Collector, Premier
	34259	Tube Frame, Collector, RH, Pro & XL		34253	Link, Flat, Collector, Pro & XL
4	33778	Tube Frame, Collector, LH, Premier	18	33783	Link, Offset, Collector, Premier
	34260	Tube Frame, Collector, LH, Pro & XL		34254	Link, Offset, Collector, Pro & XL
5	33789	Retainer, Enclosure, RH	19	35023	Bolt, Hex, Flange, 5/16-18 X .75"
6	33790	Retainer, Enclosure, LH	20	11241	Washer, Flat, 5/16", USS, ZP
7	11073	Nut, Nylon Lock, 1/4-20, ZP	21	11076	Nut, Nylon Lock, 5/16-18, ZP
8	33791	Retainer, Enclosure, Front	22	33784	Retainer, Spring, Link
9	35030	Knob, 5/16-18, W/Lock, 1.16" X .93"	23	33779	Handle, Tube Frame, Premier
10	33780	Hinge, Tube Frame, Premier		34261	Handle, Tube Frame, Pro & XL
	34251	Hinge, Tube Frame, Pro & XL	24	35026	Bolt, C-Head, 5/16-18 X 2.5", ZP
11	35027	Bolt, C-Head, 5/16-18 X 1.75", ZP	25	35439	Cart Bed W/Labels, Premier
12	27905	Push Nut, 5/16"		35440	Cart Bed W/Labels, Pro & XL
13	36664	Tube Frame, Top, Premier	26	33786	Pin, Hinge, Premier
	36665	Tube Frame, Top, Pro & XL		34255	Pin, Hinge, Pro & XL
			27	33787	Pin, Cotter, Hair, 1/4-3/8

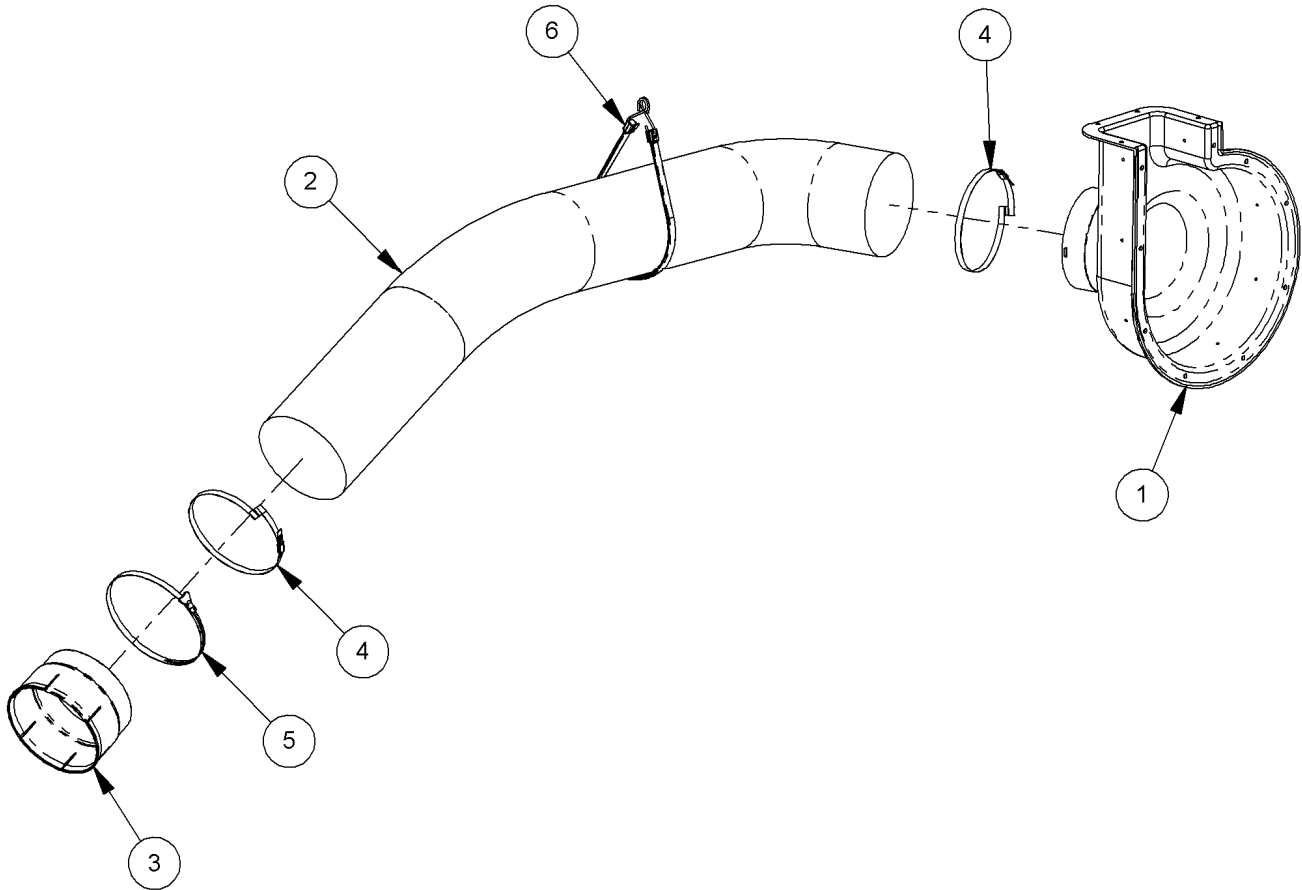
Schematic – COLLECTOR ASSEMBLY



Parts List and Schematic – HOSE ASSEMBLY

NOTE: Part numbers listed are available through DR Power Equipment.

<u>Ref#</u>	<u>Part#</u>	<u>Description</u>
1	35441	Housing W/ Label, Impeller
2	33795	Hose, 8" ID X 72" Long, PVC
3	34248	Cuff, Hose, 8"
4	33796	Clamp, Hose, 8", Bridge
5	33797	Clamp, Hose, 8", Thumbscrew
6	35442	Strap & Hook Set



Notes:

Daily Checklist for the DR LEAF and LAWN VACUUM

WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

To help maintain your DR LEAF and LAWN VACUUM for optimum performance, we recommend you follow this checklist each time you use your Vacuum.

- [] OIL: With the machine on a level surface, remove the Oil Fill Cap and check the oil level. Fill the reservoir according to the Dipstick with the recommended motor oil.
- [] GAS: Fill the gas tank with fresh, unleaded gasoline.
- [] ENGINE: It is very important to keep the Engine clean. Remove dirt and other debris from the Engine cooling fins and debris guard. A dirty Engine retains heat and can cause damage to internal Engine components.
- [] HARDWARE: Check all nuts and bolts to be sure that the components are secure.
- [] FRAME: Check all welds to be sure that the frame is intact and secure.
- [] HOSES: Inspect the Hose for holes, frayed, worn, kinked, or abraded areas. Replace a damaged or worn Hose.
- [] COLLECTOR: Empty the Collector after each use. Do not store the Leaf System with debris in the Collector.

End of Season and Storage

WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

NOTE: Please refer to the Engine Owner's Manual for engine-specific procedures.

- Change the oil. Refer to your Engine Owner's Manual for detailed information.
- If your DR LEAF and LAWN VACUUM will be idle for more than 30 days, we recommend using a gas stabilizer. This will prevent sediment from gumming up the carburetor. If there is dirt or moisture in the gas or tank, remove it by draining the tank. Completely fill the tank with fresh, unleaded gas and add the appropriate amount of stabilizer or gasoline additive. Run the engine for a short time to allow the additive to circulate.
- Remove the spark plug and pour about 1 ounce of motor oil into the cylinder hole. Replace the plug and pull the recoil starter rope until you feel strong resistance. This will coat the piston and seat the valves to prevent moisture buildup.
- Clean or replace the air filter. Refer to your Engine Owner's Manual for detailed information.
- Clean dirt and debris from the cylinder head cooling fins, Impeller housing, debris screen, and muffler area of the engine.
- Clean out residual debris from the Hose and Collector.
- Store the Battery in a dry area that will not freeze. If you will not use the machine over a long period, charge the Battery every four to six weeks.
- If possible, store the DR Leaf and Lawn Vacuum in a dry, protected area. If it is necessary to store the machine outside, cover it with a protective material (especially the Engine). Contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) to purchase a cover for your DR LEAF and LAWN VACUUM.



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