

PTO-R Driven - GRASS COLLECTION SYSTEM Model# 54120901



ZXR & ZXR SE 48", 54" & 60" DECK MODEL YEAR: **2018-NEWER**



OPERATOR'S MANUAL

ASSEMBLY • OPERATION • MAINTENANCE

MANUAL PART#: Q0538

Rev.1 - June 2020

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SAFETY

- **1.** Read the operator's manual carefully and familiarize yourself with the proper use of your attachment. Do not allow anyone who is not acquainted with the Safety Instructions to use your attachment.
- 2. Know the controls and how to stop them quickly. READ THE OPERATOR'S MANUAL!
- **3.** Do not allow children to operate the machine. Do not allow adults to operate it without proper instruction.
- 4. Be especially watchful of children and pets entering into the area while operating.
- **5.** Keep your eyes and mind on your machine while mowing or operating your attachment. Don't let others distract you.
- 6. Do not attempt to operate your machine when not in the driver's seat.
- 7. Always shut off blades and engine when emptying the container.
- 8. Stop machine, shut off deck attachment, set parking brake, shut off engine and remove ignition key before removing clogs, removing or replacing hose, boot, blower cone, or performing any maintenance.
- 9. Mow across the face of slopes (not more than 10 degrees); never up and down the face.
- **10.** It is recommended that the container be emptied when half full while operating on slopes. Start mowing on slopes when the container is empty.
- **11.** Inspect your lawn and remove any foreign objects before mowing. Never deliberately run the mower across any foreign object.
- **12.** Wear hearing protection.
- **13.** Wear eye protection to prevent debris from getting into your eyes.

SAFETY

WARNING! NEVER operate the mower unless the discharge guard and either the deflector assembly or the vacuum collector adapter are fastened securely in place.

WARNING! Do not work around the mower deck boot or the blower area until you are certain that the mower blades and the blower impeller have stopped rotating.

WARNING! To avoid serious injury, perform maintenance on the vacuum collector; **ONLY AFTER STOPPING THE MOWER'S ENGINE AND WAITING FOR ALL MOVING PARTS TO COME TO A COMPLETE STOP.** Set the parking brake. Always remove the ignition key before beginning maintenance.

WARNING! For your own personal safety, ALWAYS mow ACROSS the face of slopes and NEVER UP and DOWN the face. NEVER attempt to mow excessively steep slopes, and use caution when turning on any slope.

Safety Alert Symbol



This Safety Alert Symbol means: **"ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!"** This symbol is used to call attention to safety precautions that Should be followed by the operator to avoid accidents. When you see this symbol, carefully read the message that follows and heed its advice. Failure to comply with safety precautions could result in death or serious bodily injury.

Safety Signs

The signal words **DANGER, WARNING,** and **CAUTION** are used on the equipment safety signs. These words are intended to alert the viewer to the existence and the degree of hazard seriousness.



White letters on RED

This signal word indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.



Black letters on **ORANGE**

This signal word indicates a potentially hazardous situation which, if not

It may also be used to alert against unsafe practices.



Black letters on YELLOW

This signal word indicates a potentially hazardous situation which, if not avoided, will result in minor or moderate injury.

It may also be used to alert against unsafe practices.

avoided, could result in death or serious injury.

2017 (v1.0)

PECO LIMITED WARRANTY FOR NEW PRODUCTS

New PECO, Inc. extends the following warranties to the ORIGINAL PURCHASER of each New PECO, Inc. consumer product purchased from one of our Dealers or directly from New PECO, Inc., subject to the following limitations:

A. ITEMS COVERED UNDER WARRANTY:

- PRODUCT WARRANTY Any part or parts which are deemed defective in material or workmanship, as delivered to the original purchaser, will either be repaired or replaced, as New PECO, Inc. elects, without charge for parts or labor, if the defect appears within 12 months from the date of purchase of the product to the Original Purchaser.
- 2. PARTS REPLACED DURING WARRANTY Any New PECO, Inc. part which is furnished in performance of this warranty and is defective in material or workmanship as delivered to the purchaser will be repaired or replaced, as New PECO, Inc. elects, before the expiration of the original warranty period.

B. WARRANTY DISTINCTIONS:

- RESIDENTIAL Products put to a personal use around a single household or residence are considered Residential. Products designated as "Residential" are warrantied for 12 months from the date of purchase of the product, to the ORIGINAL PURCHASER with proof of purchase, when used for or in residential applications.
- 2. COMMERCIAL Products put to any business use (agricultural, commercial or industrial) or used at multiple locations are considered Commercial. Products designated as "Commercial" are warrantied for 12 months from the date of purchase of the product, to the ORIGINAL PURCHASER with proof of purchase, when used for or in commercial applications. Products designated as "Residential" are warrantied for 90 days from the date of purchase of the product, to the ORIGINAL PURCHASER with proof of purchase, when used for or in Commercial applications.
- 3. RENTAL Products used for Rental or Lease Purposes are warrantied for 45 days from date of purchase of the product, to the ORIGINAL PURCHASER with proof of purchase, when used for or in a rental business.

C. ITEMS NOT COVERED BY NEW PECO WARRANTY:

- 1. ENGINES & BATTERIES: Engines and Batteries attached to New PECO, Inc. products are covered under their respective separate manufacturer warranties and those companies must be contacted directly to file a warranty claim. Briggs & Stratton: <u>https://www.briggsandstratton.com/na/en_us/support/warranty.html</u>
- 2. UNAPPROVED ALTERATION OR MODIFICATION: All obligations of New PECO, Inc. under this warranty shall be terminated if products are altered or modified in any way not approved by New PECO, Inc.
- 3. ACCIDENTS & NORMAL MAINTENANCE: This warranty covers ONLY manufacturers defective material and workmanship. It does not cover depreciation or damage caused by normal wear & tear, accident, improper maintenance, misuse or abuse of products. New PECO, Inc. products must be operated and maintained in accordance with the instructions furnished in the manuals. The cost of normal maintenance and normal replacement of service items such as belts, cu翻 ng blades, hoses, bags, etc., which are not defective shall be paid for by the purchaser.
- 4. NO SERVICE CENTER WARRANTY: The selling Service Center/Dealer makes no warranty on his own on any item warranted by New PECO, Inc. unless he delivers to purchaser a separate written warranty certificate specifically warranting the item. The Service Center or Dealer has no authority to make any representation or promise on behalf of New PECO, Inc. or to modify the terms of the original warranty in any way.
- 5. NO REPRESENTATIONS ADDITONAL WARRANTIES, DISCLAIMER: Neither New PECO, Inc. nor any company a翻 liated with New PECO, Inc. makes any warranties, representations or promises as to the quality of performance of its products other than those set forth herein. Except as described above, New PECO, Inc. makes no other warranties **AND SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY.**
- 6. REMEDIED EXCLUSIVE: The only remedies the purchaser has in connection with the breach or performance of any warranty on New PECO, Inc. consumer products are set forth above. In no event will New PECO, Inc. be liable for special incidental or consequential damages.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, search by your zip code on <u>www.lawnvac.com</u> or contact our Sales Department at New PECO, Inc. 800-438-5823 or email <u>Sales@lawnvac.com</u>.

Section I - INTRODUCTION AND DESCRIPTION

Introduction

We are pleased to have you as a PECO customer. Your collection system has been designed to give you a low maintenance, simple, and effective way to collect the grass clippings from your mower. The manuals are provided to give you the necessary instructions to properly mount, operate and maintain the collection system on your mower. Please read this manual thoroughly. Understand what each control is for and how to use it. Observe all safety decal precautions on the machine and noted throughout the manual.

NOTE: All references made to right, left, front, rear, top or bottom are as viewed from the normal operator's position on the mower.

Description

The grass collection system is designed for turf maintenance where there is a need to collect the grass clippings as the mower cuts the turf. It is also used for picking up leaves in pre-season and post-season cleanup. The blower, mounted on the right side of the unit, uses a belt and gearbox system from the engine PTO shaft. Drive train protection comes through belt slippage. The blower draws grass clippings from the discharge area of the cutting deck back to the collection bags at the rear portion of the mower frame. The operator can engage the blower with a toggle switch mounted on the control panel to the right of the operator. Once the bags are full with clippings, they can be easily released for dumping.

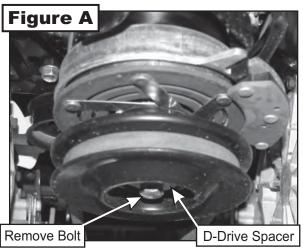


Section II - INSTALLATION FOR USE

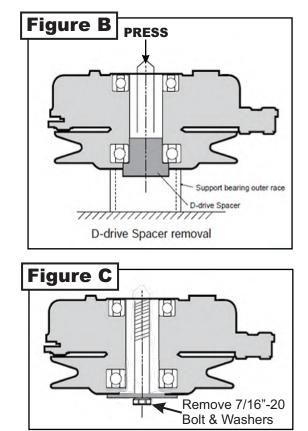
Preparation Of Mower

NOTE: The mower deck PTO belt must be removed from the electric clutch before continuing with the installation. Refer to your mower's owner's manual for instructions on PTO belt removal.

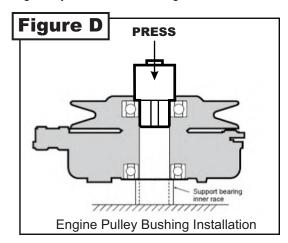
From the underside of the engine, disconnect the wiring harness attached to the electric clutch. Remove the bolt and electric clutch from the mower. Refer to Figure A.



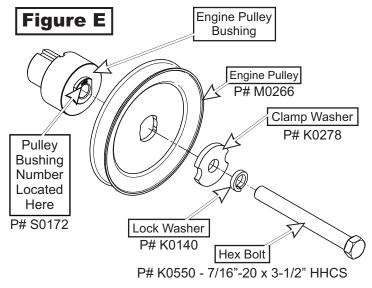
Upon removal of clutch determine if your mower is equipped with a D-drive spacer. If so, then proceed to Figure B. If your mower is equipped with bolt, fender and lock washer without D-drive spacer proceed to Figure C. Remove the D-drive spacer using an arbor press or equivalent. On removal, adjacent bearing OUTER race must be supported or bearing damage may occur. Refer to Figure B.



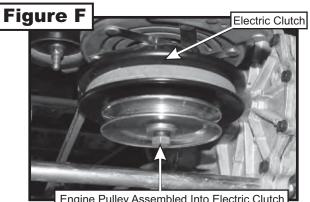
The engine pulley assembly must be installed using an arbor press or equivalent. During installation, opposite bearing inner race must be supported or bearing damage may occur. Refer to Figure D.



Once the Engine Pulley Bushing is installed, reattach the clutch assembly & deck PTO belt to the mower and then review Figure E.



To assemble and fasten the Engine Pulley, align the Engine Pulley Bushing to the mower's clutch pulley and fasten using (1) Clamp Washer, (1) Lock Washer, and (1) Hex Bolt. Torque the bolt to 55 ft./lbs. The added pulley will power the collection system and should resemble Figure F when installed.

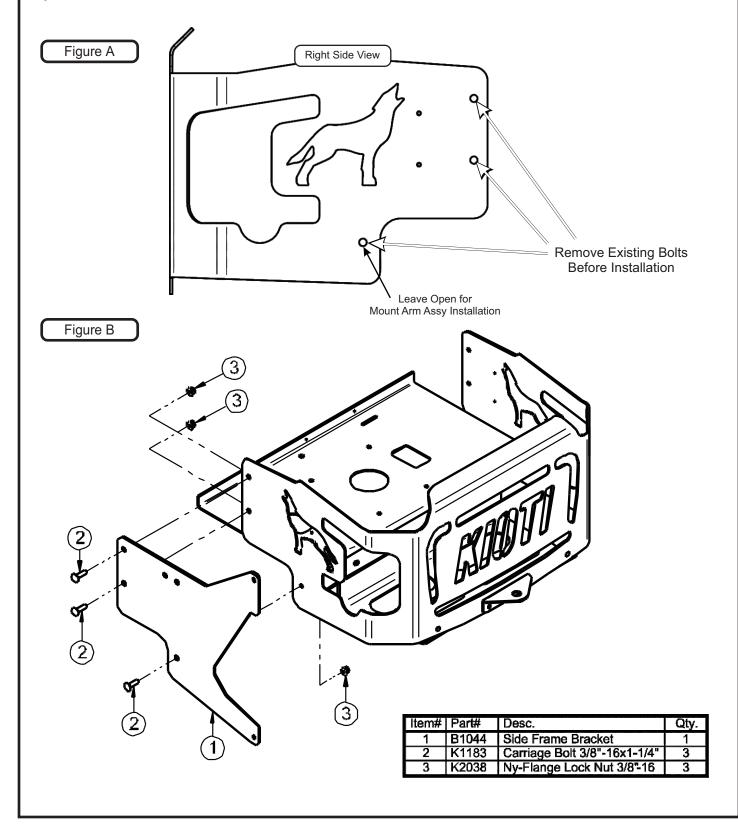


Side Frame Bracket Installation

<u>Note</u>: It is recommended to start on either the Left or the Right side of the mower and completely install both Side Frame Brackets (Item #1) before installing the Rear Frame Bracket.

Starting on one side, remove the (3) bolts Located on the side of the mower's rear end bumper. Refer to Figure A. Position the Side Frame Brackets (Item #1) on either side of the mower as shown in the figure below.

Secure the Side Frame Bracket to the Left of the mower using (3) 3/8"-16 x 1-1/4" Carriage Bolts (Item #2) and (3) 3/8"-16 Ny-Flange Lock Nuts (Item #3). Refer to Figure B. To secure the Side Frame Bracket to the Right side of the mower, repeat the process but leave the bottom bolt hole empty for the installation of the Mount Arm Assembly. See Figure A.



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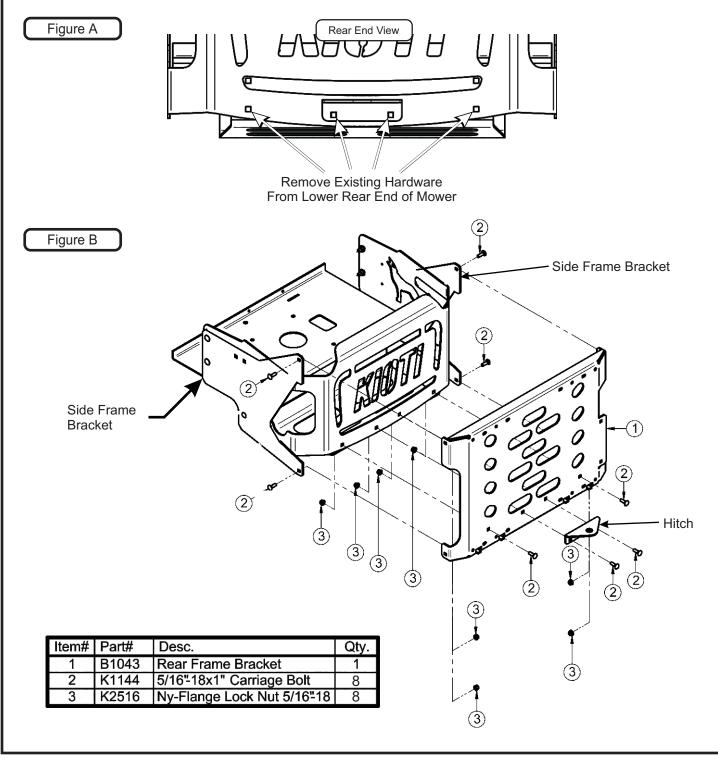
Rear Frame Bracket Assembly & Installation

Before installing the Rear Frame Bracket, first remove the existing hitch and its hardware located at the rear end of the mower and set it aside (Refer to Figure A). Next, remove the two bolts located on either side of the hitch kit that was just removed.

To install the Rear Frame Bracket (Item #1), position the Rear Frame Bracket over the rear end of the mower aligning all of the lower bolt holes of the Rear Frame Bracket to those on the mower's rear end. Secure the Rear Frame Bracket to the mower by replacing the existing hitch removed from earlier and using (4) 5/16"-18 x 1" Carriage Bolts (Item #3) and (4) 5/16"-18 Ny-Flange Lock Nuts (Item #4). Refer to Figure B.

Secure the Rear Frame Bracket (Item #1) to the Side Frame Brackets by using (4) 5/16"-18 x 1" Carriage Bolts (Item #3) and (4) 5/16"-18 Ny-Flange Lock Nuts (Item #4). Refer to Figure B.

Leave the hardware Loose on the Right Side Frame Bracket for the installation of the Mount Arm Assembly, all other hardware maybe tightened at this time.



PTO Mount Plate Assembly & Installation

To Install the Right PTO Mount Plate (Item #1), remove the loose hardware from the far right side of the Side Rear Frame Bracket. Align the bolt holes of the Right PTO Mount Plate to those of the Side Rear Frame Bracket and secure the Right PTO Mount Plate by replacing the (2) 3/8"-16 x 1-1/4" Carriage Bolts (Item #3) and (2) 3/8"-16 Ny-Flange Lock Nuts (Item #4). Refer to the Figure below.

To Install the Left PTO Mount Plate (Item #2), align the bolt holes of the Left PTO Mount Plate to those located on the Side Rear Frame Bracket. Refer to the Figure below. Secure the Left PTO Mount Plate by using (2) 3/8"-16 x 1-1/4" Carriage Bolts (Item #3) and (2) 3/8"-16 Ny-Flange Lock Nuts (Item #4).

Note: Keep all hardware relatively loose for the installation of the PTO Stop Plate.

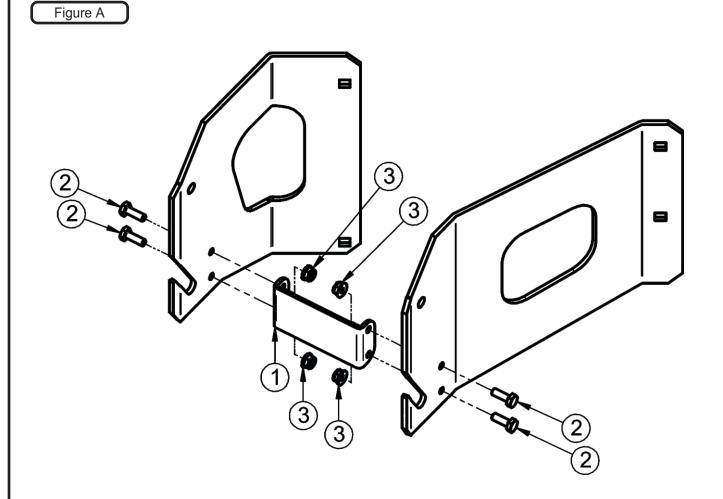
Figure A Part# Item# Desc. Qty. **Right PTO Mount Plate** B1045 1 Left PTO Mount Plate 2 B1046 1 Carriage Bolt 3/8"-16x1-1/4" 3 K1183 4 K2038 Ny-Flange Lock Nut 3/8"-16 4 4 Side Rear Frame Bracket

PTO Stop Plate Assembly & Installation

Note: Keep all hardware relatively loose until the end.

To install the PTO Stop Plate (Item #1), align the bolt holes of the PTO Stop Plate to those of the PTO Mount Plates. Secure the PTO Stop Plate to the PTO Mount Plates by using (4) 1/4"-20 x 3/4" HHCS (Item #2) and (4) 1/4"-20 Ny-Flange lock Nuts (Item #3). Refer to the Figure Below.

Tighten all hardware at this time.

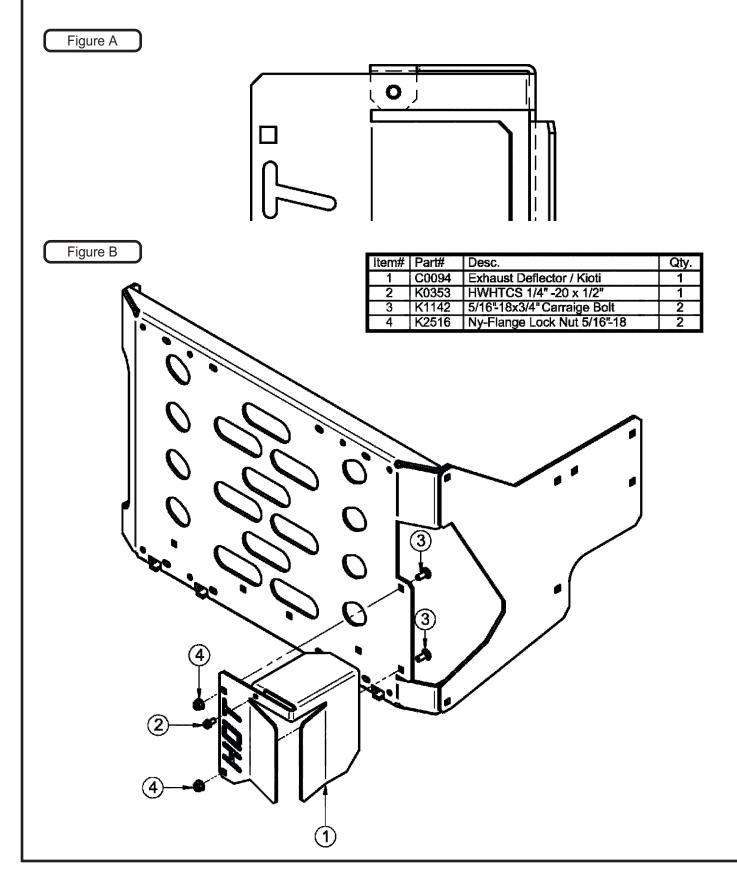


Item#	Part#	Desc.	Qty.
1	B0733	PTO Stop Pl.	1
2	K1222	1/4"-20X3/4" HHCS	4
3	K2014	1/4"-20 Ny-Flange Lock Nut	4

Exhaust Deflector Installation

To install the Exhaust Deflector (Item #1), Fasten a 1/4"-20 x 1/2" HWHTCS self-tapping screw (Item #2) between the front bolt hole and the rear tab bolt hole of the Exhaust Deflector. Refer to Figure A. This will help keep the Deflector stable.

Next, align the carriage bolt holes of the Exhaust Deflector to the carriage bolt holes located on the tab of the Rear Frame Bracket. Secure the Exhaust Deflector using (2) 5/16"-18 x 1" Carriage Bolts (Item #3) and (2) 5/16"-18 Ny-Flange Lock Nuts (Item #4). Refer to Figure B.



Exhaust Diverter Installation

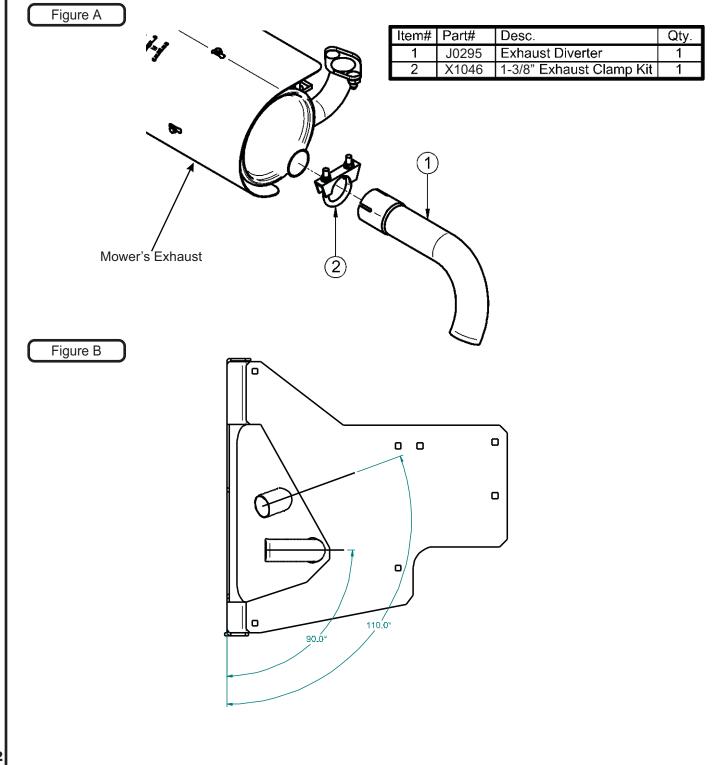
Note: Keep hardware relatively loose until the Exhaust Diverter has been optimally positioned.

To install the Exhaust Diverter (Item #1), slide the part over the exhaust of your mower. Secure the Exhaust Diverter by using the 1-3/8" Exhaust Clamp Kit (Item #2) over the Exhaust Diverter. Refer to Figure A.

To keep the Exhaust Diverter from burning the grass, position the Exhaust Diverter to the optimal position based on the mower's exhaust positioning:

If the mower's exhaust sits higher, angle the Exhaust Diverter to about 110°. If the mower's exhaust sits lower, angle the Exhaust Diverter to about 90°.

Refer to Figure B.

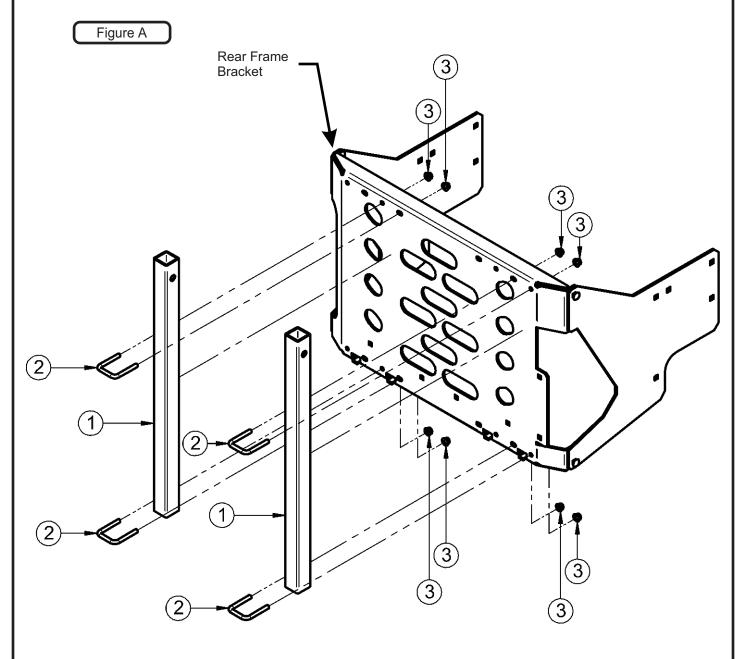


Lower Mount Tube Installation

To Install the Lower Mount Tubes (Item #1), align the mount tubes to the bolt holes on the furthest right of the Rear Frame Bracket. Refer to the Figure below.

Secure (2) Lower Mount Tubes (Item #1) to the Rear Frame Bracket using (2) 5/16"-18 x 2" x 2-1/2" U-Bolt (Item #2) and (4) 5/16"-18 Ny-Flange Locknuts (Item #3) PER TUBE.

Allow the Lower Mount Tubes to rest on the tabs of the Rear Frame Bracket. Refer to the Figure below.



Item#	Part#	Desc.	Qty.
1	B0752	Lower Mount Tube / 25"	2
2	K1098	U-Bolt / 5/16"-18x2" x 2-1/2"	4
3	K2516	Ny-Flange Lock Nut 5/16"-18	8

Upper Frame Assembly Installation

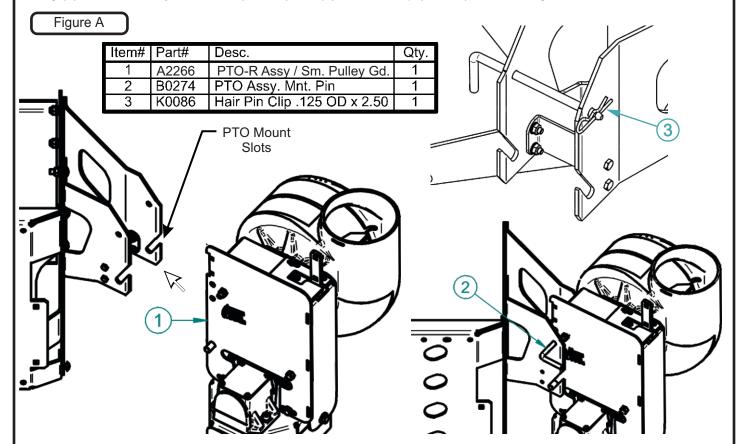
Position the Upper Frame Assembly (Item #1) above the Lower Mount Tubes as shown in Figure A. Slide the Upper Frame Assembly down onto the Lower Mount Tubes and secure using (2) Clevis Pins (Item #2) and (2) Rue Ring Cotter Pin Clips (Item #3). Refer to Figure B.

Figure A	
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	Ĺ					
Item # Pa	art #	Desc.	Otv			
	2047	Upper Frame Assy / P2B+ Gen. 2	Qty.			
	0133	Clevis Pin 1/2" x 2-1/2"	2			
3 K	1437	Rue Ring Cotter Pin	2	•		M
	1407				, v	
		1				Mounting Tube
Figure E	3					

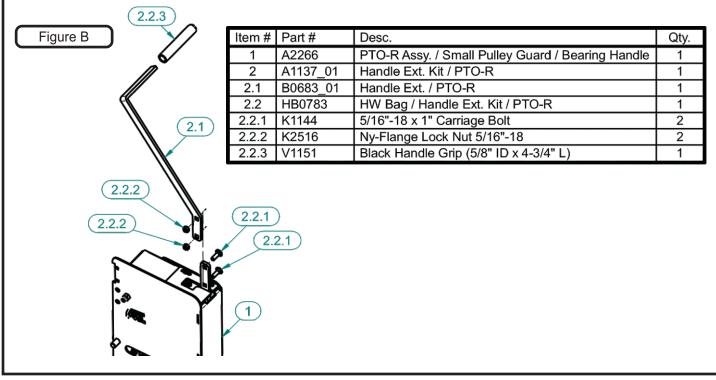
PTO Drive Assembly Installation

Locate the PTO mounting slots on both the Left and Right PTO Mount Plates. Insert the pivot rod of the PTO Assembly (Item#1) into the mounting slots of the Left and Right PTO Mount Plates. Secure the PTO Assembly by using (1) PTO Assembly Mount Pin (Item#2) and (1) Hair Pin Clip (Item#3). Refer to Figure A.



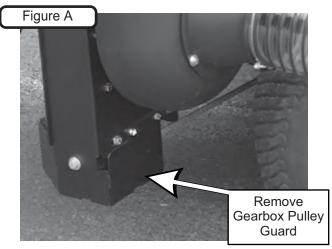
Handle Extension Kit Installation

To install the Handle Extension Kit, align the (2) bolt holes of the Handle Extension (Item #2.1) to the Base Handle of the PTO-R Assy (Item #1). Secure the Handle Extension using (2) 5/16"-18 x 1" Carriage Bolts (Item #2.2.1) and (2) 5/16"-18 Ny-Flage Lock Nuts (Item #2.2.2). Finally, install the Black Handle Grip (Item #2.2.3) onto the top of the Handle Extension. Refer to Figure B.

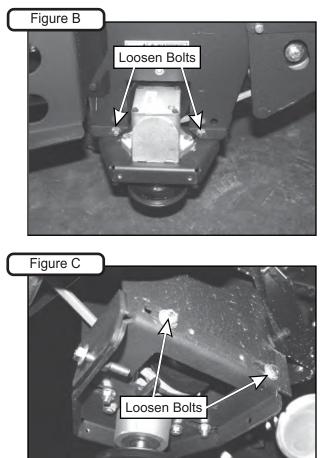


Belt Installation and Adjustment PTO MODELS ONLY

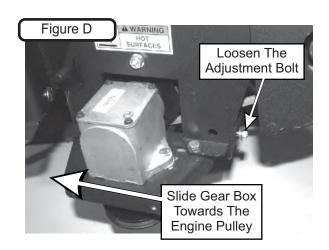
Remove (3) 1/4"-20 x 1/2" HHSTS P#(K0353) from the gearbox pulley guard located on the bottom of the PTO assembly (Refer to Figure A).



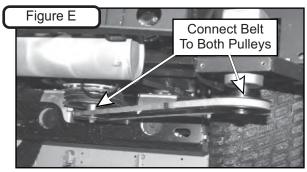
Loosen the (4) bolts P#(K1153), (2) on each side, that secure the gear box assembly to the PTO assembly P#(A1950) (Figure B and C).



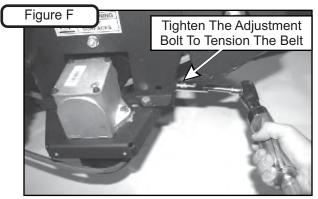
Loosen the adjustment bolt P#(K0348) until the gear box assembly is at its far left adjustment (the gear box is moved toward the mower's engine pulley). Refer to Figure D.



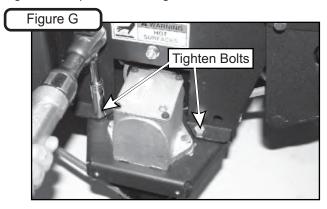
Connect the belt A60K P#(M0249) from the engine pulley to the lower gear box pulley (Figure E).



To tension the drive belt, turn the adjustment bolt clockwise (Figure F) until there is 1" of deflection, with 10-11 lbs. of pressure, at the center of the belt between the engine pulley and the gear box pulley.

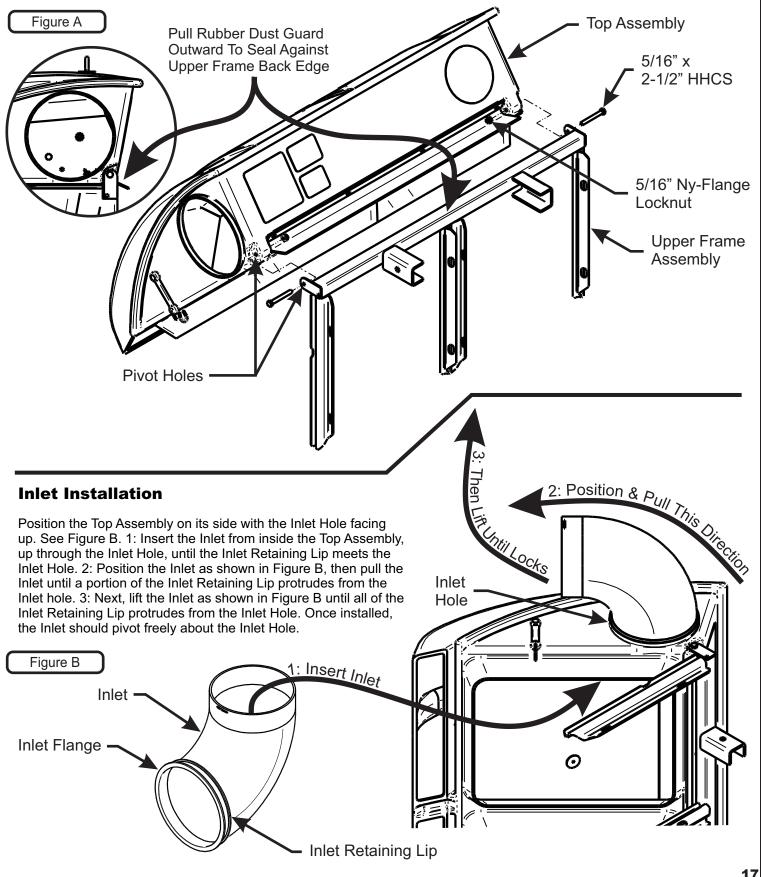


Once the correct tension of the belt is achieved, tighten the (4) bolts that secure the gear box assembly. Refer to Figure G. Replace the belt guard.



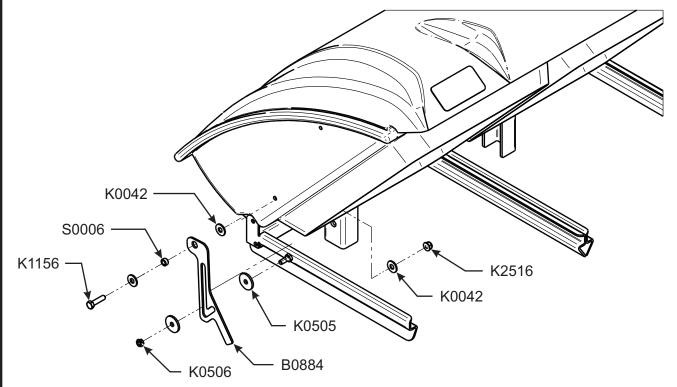
Top Assembly To Upper Frame Assembly Installation

Align the Top Assembly Pivot Holes to the Upper Frame Assembly. See Figure A below. Before fastening, pull Rubber Dust Guard outward to seal against Upper Frame Assembly (towards the mower's operator seat). Fasten the Top Assembly to the Upper Frame Assembly using (2) 5/16"-18 x 2-1/2" HHCS P#(K0125) and (2) 5/16"-18 Ny-Flange Locknuts P#(K2516). Leave the Ny-Flange Locknuts slightly loose to allow the Top Assembly to open and close easily.



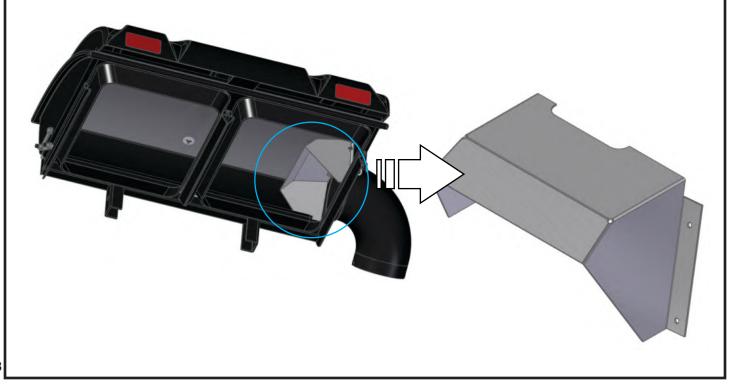
Hinge Kit Assembly Installation

Assemble the Hinge Kit using (1) Latch Plate P#(B0884), (1) 5/16"-18 x 1-1/4" HHCS P#(K1156), (1) 5/16"-18 Ny-Flange Lock Nut P#(K2516), (3) 5/16" Flat Washers P#(K0042), (1) Latch Spacer P#(S0006), (2) Extra Heavy 5/16" Fender Washers P#(K0505) and (1) 5/16"-18 Lock Nut P#(K0506). Leave the nuts loose enough to allow fluid movement of the top when opening and closing. When opened, the top should rest in the Latch Plate Slot.



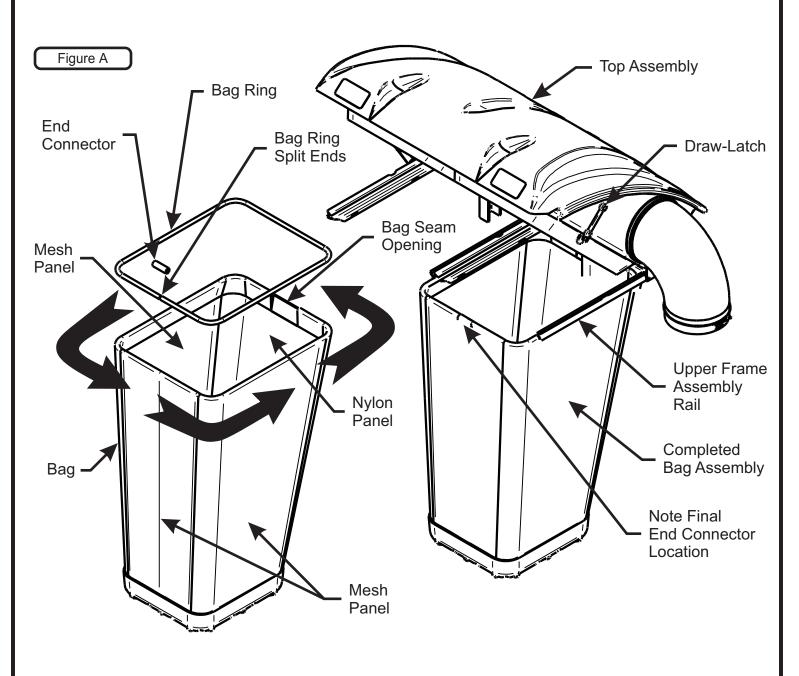
Even Bag Fill Adjustment

Flap can be adjusted Up/Down depending on mowing conditions. Adjust flap up to allow more dense material to reach left bag. Adjust flap down to allow less dense material to reach the right bag. Once adjusted properly, both bags should fill evenly, but may require further adjusting when mowing conditions change.



Bag Assembly

First, take one of the Bag Ring Split Ends and insert it through the Bag Seam Opening. Next, rotate the Bag around the Bag Ring (1) full turn (360 degrees) until the Bag Ring Split Ends and the Bag Seam Opening are positioned on the same side. Then, connect the Bag Ring Split Ends using (1) End Connector. Last, rotate the Bag Ring and the End Connector Assembly (1/2") turn (180 degrees) to position the Connector opposite of the Bag Seam Opening. Note Final End Connector Location below in Figure A. Repeat for each Bag.

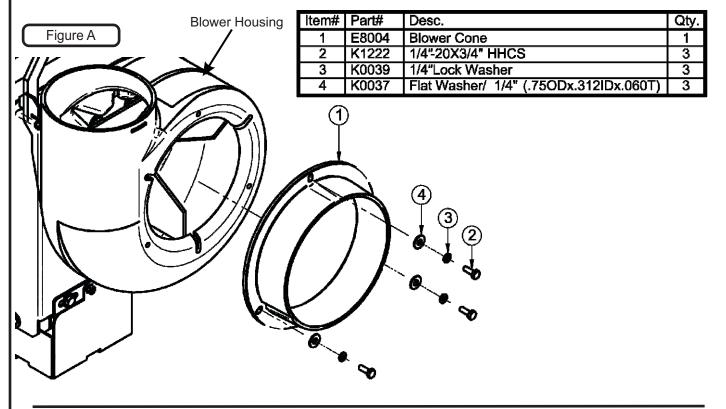


Bag Assembly Installation

Slide the Completed Bag Assembly into the Upper Frame Assembly Rails and close the Top Assembly. Fasten the Draw-Latch on either side to hold the bagger closed.

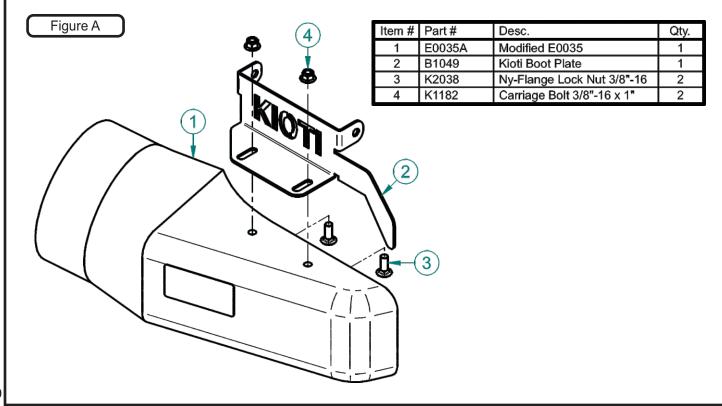
Blower Cone Installation

Align the bolt holes of the 8" Blower Cone (Item#1) to the bolts holes located on the Blower Housing of the PTO Assembly. Secure the 6" Blower Cone to the Blower Housing by using (3) 1/4"-20 x 3/4" HHCS (Item#2), (3) 1/4" Lock Washers (Item#3), and (3) 1/4" Flat Washers (Item#4). Refer to Figure B.



Boot Kit Installation

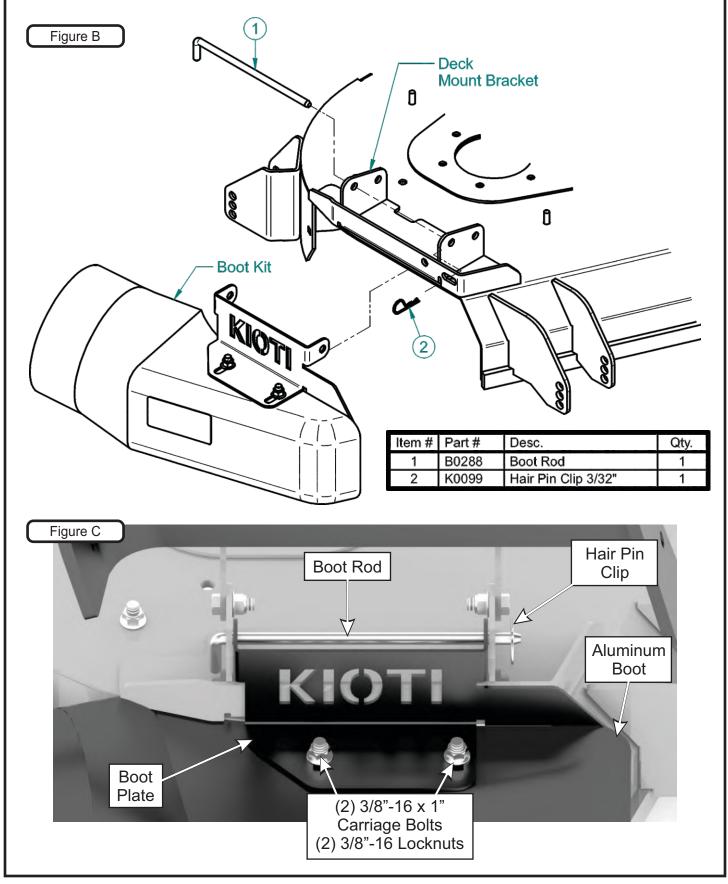
Secure the Boot Plate (Item #2) to the Aluminum Boot (Item #1) using (2) 3/8"-16 x 1" Carriage Bolts (Item #3) and (2) 3/8"-16 Nylon Flange Locknuts (Item #4). Insert the bolts from the inside so that the threads are on top of the boot. This will prevent grass clippings from collecting on the bolt threads. Leave the hardware loose until the boot assembly has been attached to the mower deck. Refer to Figure A below.



Boot Kit Installation (cont.)

Lift the deck discharge chute and position the assembled Boot between the two mounting brackets on the mower's deck, refer to Figure B. Secure the boot plate by using (1) Boot Rod (Item #1) and (1) Hair Pin Clip (Item #2). Close any gaps between the boot and the mower deck by adjusting the position of the Boot and the Boot Plate. Tighten all hardware once the Boot has been correctly positioned. Refer to Figure C for a fully positioned Boot.

Note: Some parts and part features have been hidden fro view for visual clarity.



Length Of Hose Adjustment

The hoses in the following steps must be cut to fit your machine. Do not cut the hoses until you have tried to fit them on your machine. Remember that the hoses need to be long enough to allow for the opening and closing of the collection system as well as allowing ample clamping surface between each component.

Upper Hose Installation

Slide a Hose Clamp P#(J0060) over one end of the 6" Upper Hose. Secure this end of the 6" Upper Hose to the Blower Outlet. See Figure below for details. Secure opposite end of the 6" Upper Hose to the Inlet. Make sure both ends are securely fastened by tightening the Hose Clamp and rotating the Inlet Snap Fastener towards the hose to lock in place.

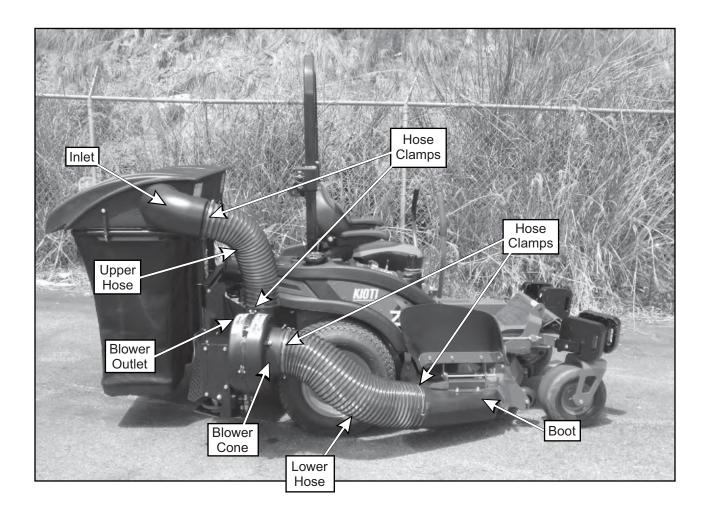
Lower Hose To Blower Cone Installation

Slide a Hose Clamp P#(J0080) over both ends of the Lower Hose. Secure one end of the Lower Hose to the Blower Cone and fasten by tightening the Hose Clamp.

Lower Hose To Boot Installation

Take the unattached end of the Lower Hose and secure it to the circular end of the Boot and fasten by tightening the Hose Clamp.

Tip: Before securing Hose Clamp fully, rotate Lower Hose counter-clockwise (away from yourself) approximately 1" to aid in retaining Boot to mower deck.

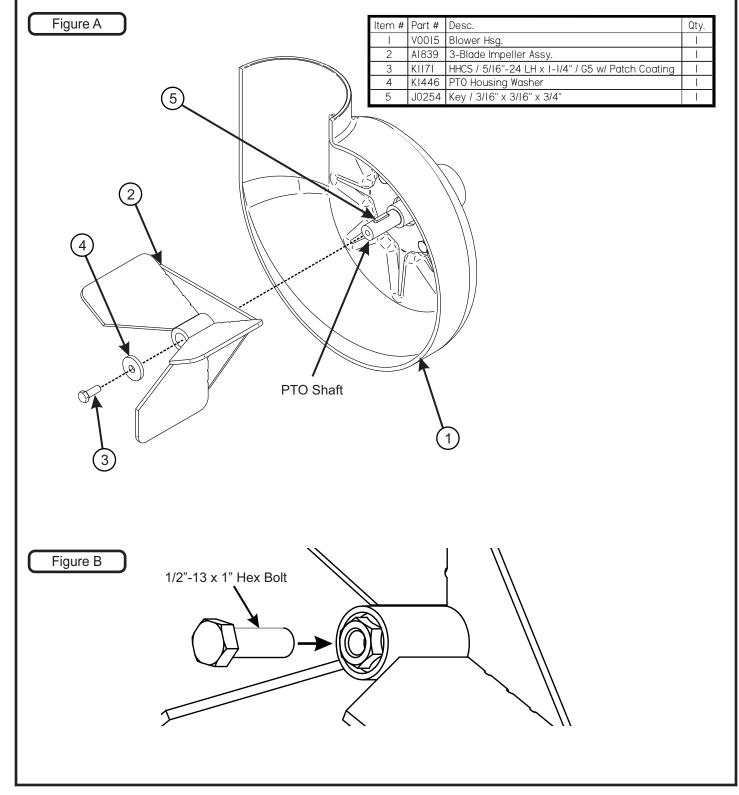


Impeller Blade Removal/Replacement

To Remove: To access the impeller blade, remove the Blower Cone and Blower Cone Hardware from the Blower Housing (Item#1). Remove the 5/16"-24 x 1-1/4" LH HHCS (Item#3) and (1) Washer (Item#4) (Refer to Figure A). Insert (1) 1/2"-13 x 1" Hex Bolt into the threads on the Impeller Blade (Refer to Figure B). Tighten the Hex Bolt until the Impeller Blade breaks free from the PTO Shaft. Remove the Impeller Blade Assembly (Item#2) from the PTO Shaft. Remove the Key (Item#5) from the PTO shaft.

To Replace: Insert the Key (Item#5) into the keyway slot on the PTO Shaft. Align the keyway slot on the Bushing of the Impeller Blade Assembly with the Key on the PTO Shaft and insert the Impeller Blade onto the PTO Shaft. Secure the Impeller Blade with (1) 5/16"-24 x 7/8" LH HHCS (Item#3) and (1) Washer (Item#4) (Refer to Figure A). Replace the Blower Cone and Blower Cone Hardware.

NOTE: Figure A is portraying a cross section view of the PTO Blower Housing.



Weight Kit Installation

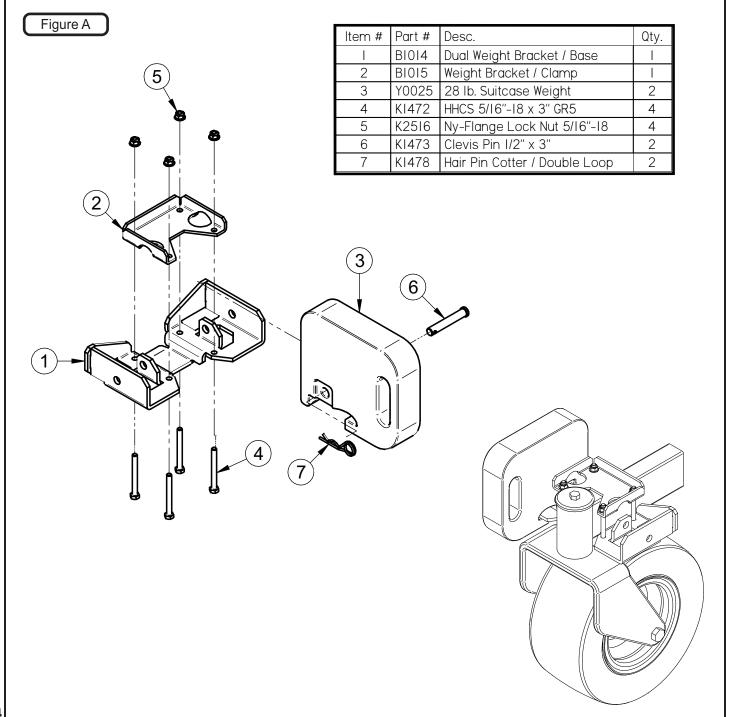
Position the Dual Weight Bracket Base (Item #1) under the caster tubing w/ opening towards caster fork. Next, position the Weight Bracket Clamp (Item #2) on top of caster tubing w/ opening towards caster fork.

Align the (4) holes of the Weight Bracket Clamp (Item #2) to the holes in the Dual Weight Bracket Base (Item #1). Loosely fasten the Weight Bracket Clamp (Item #2) to the Weight Bracket Base (Item #1) using (4) 5/16"-18 x 3" Bolts (Item #4) & (4) 5/16"-18 Ny-Flange Lock Nuts (Item #5).

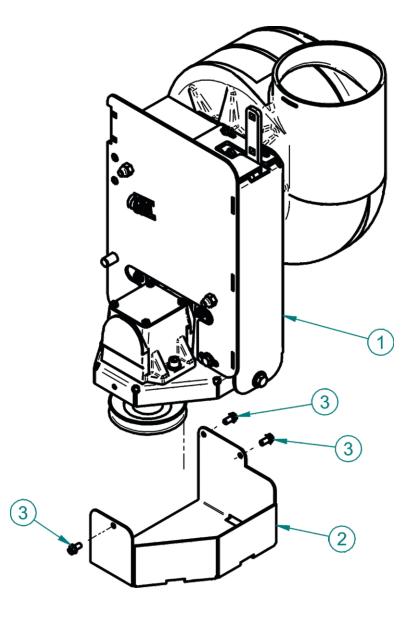
Position the Weight Bracket Base and the Weight Bracket Clamp assembly along the caster tubing to prevent interference from caster forks or any other objects. Tighten the fasteners in an 'X' pattern until assembly is firmly clamped to caster tubing. Do not over tighten which may result in bending Weight Bracket Clamps (Item #3).

Insert (1) Weight (Item #3) Into the Weight Bracket Base (Item #2) & align the holes of the Weight w/ the holes of the Weight Bracket Base (Item #2). Fasten the Weight (Item #1) to the Weight Bracket Base Using (1) Clevis Pin (Item #6) & (1) Hair Pin Clip (Item #7) per weight.

Repeat on additional caster. Refer to the Figure Below.

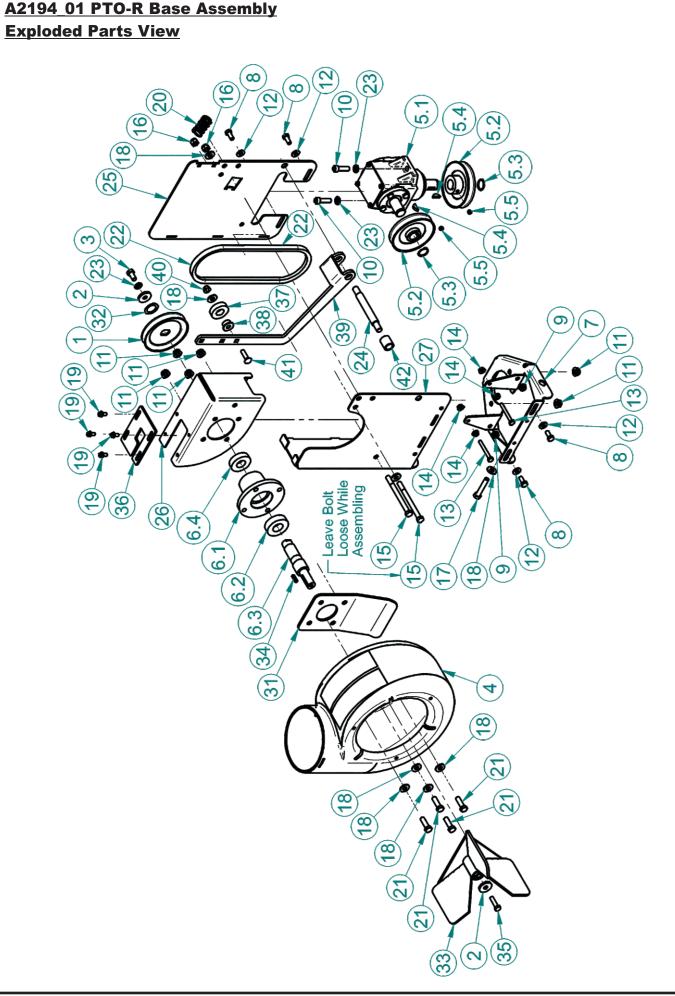


A2266 PTO-R Assembly Exploded Parts View



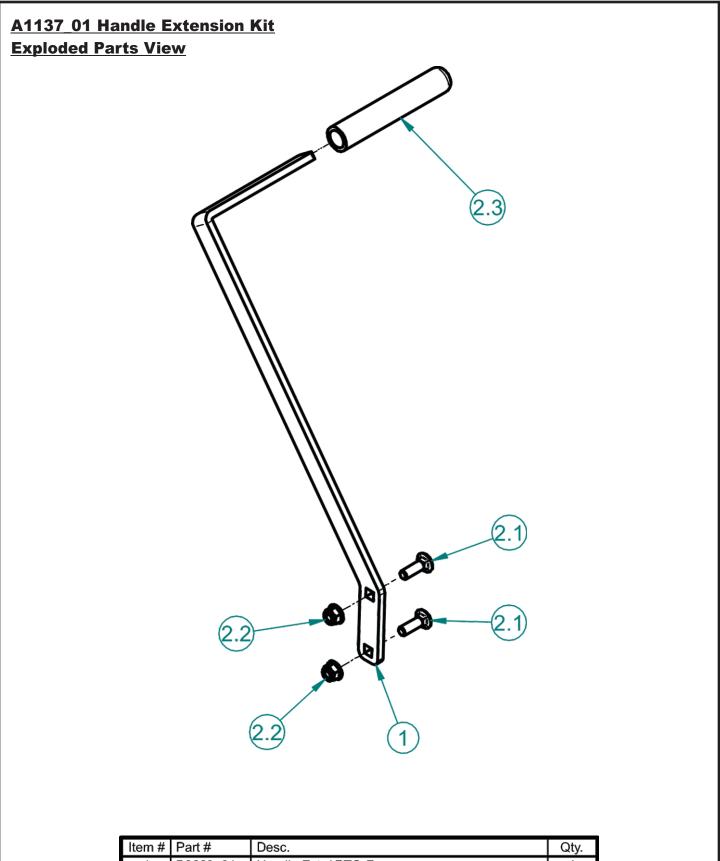
Item #	Part #	Desc.	Qty.
1	A2194_01	PTO-R Base Assy. / Bearing Handle	1
2	B0478	Small Pulley Guard / PTO-R	1
3	K0353	HWHTCS 1/4"-20 x 1/2"	3

A2194_01 PTO-R Base Assembly

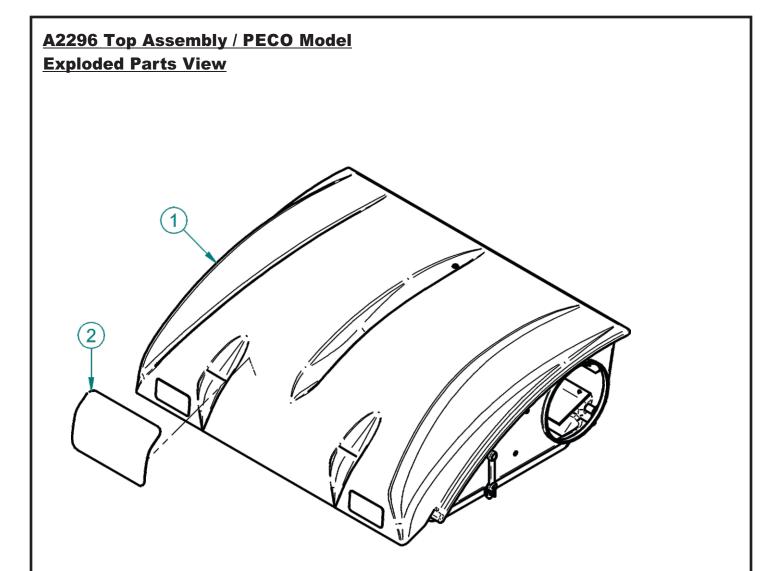


A2194_01 PTO-R Base Assembly Parts List

Item #	Part #	Desc.	Qty.
1	M0266	A-Section Pulley / 4.25 OD	1
2	K1446	PTO Housing Washer	2
3	K1190	HHCS / 3/8"-16 x 3/4"	1
4	V0015	Blower Hsg.	1
5	A0429	Gear Box Assy.	1
5.1	A0431	Gearbox	1
5.2	A0498	Pulley Assy. / Gear Box	2
5.3	K0360	Snap Ring / 7/8" Shaft	2
5.4	J0272	Woodruff Key #9	2
5.5	K0035	Set Screw 5/16"-18 x 1/4" Cup Point	2
6	A1004	PTO Shaft Assy.	1
6.1	E0015	Housing / PTO Shaft	1
6.2	N0147	Bearing (2.0472 OD, 0.9843 ID, 0.5906 W)	1
6.3	B0460	PTO Shaft	1
6.4	N0165	Bearing (1.875 OD, .875 ID, .500 W)	1
7	A1003	PTO Base Plate Assy.	1
8	K1153	HHCS 5/16"-18 x 3/4"	4
9	K1178	Flange Nut 5/16"-18	4
10	K0309	3/8"-16 x 1-1/4" SHCS	2
11	K1215	Flange Nut 3/8"-16	6
12	K0037	Flat Washer / 1/4" (.75 OD x .312 ID x .060 T)	4
13	K1150	HHCS / 1/4"-20 x 2-1/4"	2
14	K1126	Flange Nut 1/4"-20	4
15	K1202	HHCS / 3/8"-16 x 4-1/2" / G5	2
16	K1216	Nyloc Nut / 3/8"-16	2
17	K0348	HHCS / 3/8"-16 x 2" All Thread	1
18	K0042	Flat Washer 5/16" / .875 OD x .380 ID x .075 T	8
19	K0353	HWHTCS 1/4"-20 x 1/2"	4
20	J0303	Spring	1
21	K1192	HHCS 3/8"-16 x 1-1/4" GR5	4
22	M0267	Kevlar Belt / A28K	1
23	K0048	Lock Washer 3/8"	3
24	B0505	Mount Rod	1
25	B0506 01	Lt. PTO Arm	1
26	B0642 01	Mount Bracket / Blower Hsg.	1
27	B0643_01	Rt. PTO Arm	1
31	B0739	Stiffener Plate / Blower Hsg.	1
32	K0070	Flat Washer (1.295 OD x .881 ID x .020 T)	1
33	A1839	3-Blade Impeller Assy.	1
34	J0254	Key / 3/16" x 3/16" x 3/4"	1
35	K1171	HHCS / 5/16"-24 LH x 1-1/4" / G5 w/ Patch Coating	1
36	B1875	Belt Tension Adjust Bracket	1
37	N0148	Bearing (1.625 OD, 0.750 ID, 0.4375 W)	1
38	S0021	Flange Bushing / Bearing	1
39	B1897	Base Handle	1
40	K2516	Ny-Flange Lock Nut 5/16"-18	1
40	K1146	5/16"-18 x 1-1/4" Carriage Bolt	1
41	S0229	Spacer Bushing	1

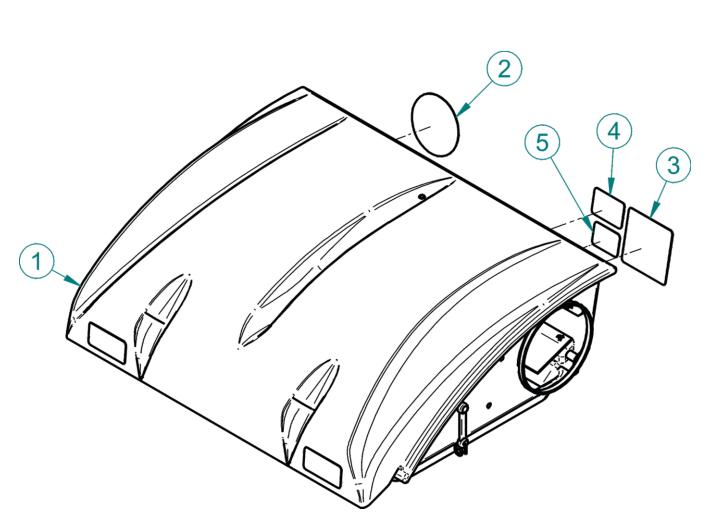


Item #	Part #	Desc.	Qty.
1	B0683_01	Handle Ext. / PTO-R	1
2	HB0783	HW Bag / Handle Ext. Kit / PTO-R	1
2.1	K1144	5/16"-18 x 1" Carriage Bolt	2
2.2	K2516	Ny-Flange Lock Nut 5/16"-18	2
2.3	V1151	Black Handle Grip (5/8" ID x 4-3/4" L)	1



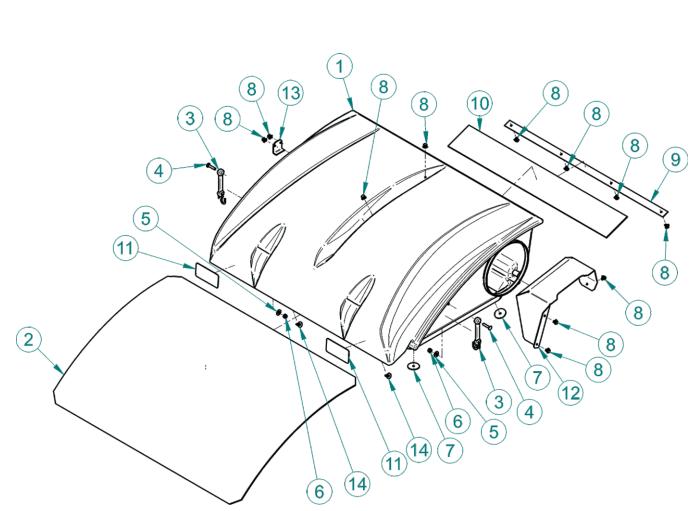
Item #	Part #	Desc.	Qty.
1	A2101	Top Assy / P2B+ Gen. 2 / Standard Model	1
2	R1070	PECO Logo Decal	1

A2101 Top Assembly Exploded Parts View

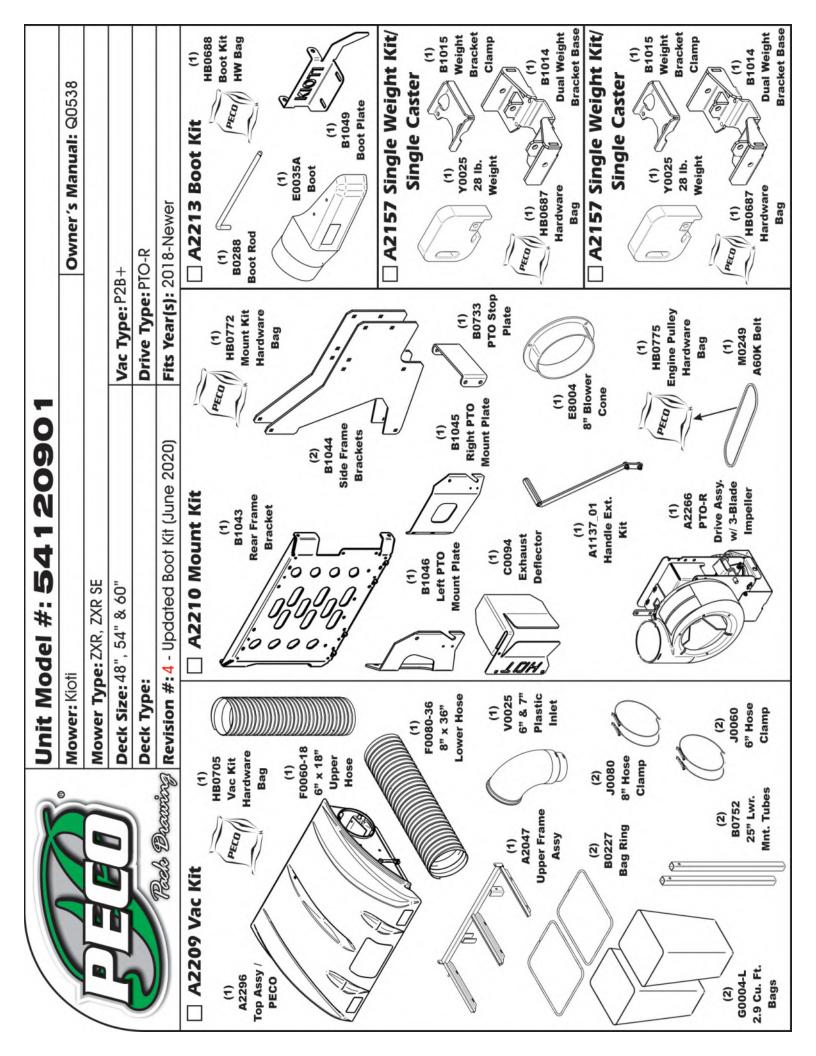


Item #	Part #	Desc.	Qty.
1	A2222	Top Assy / P2B+ Gen. 2 / Base Model	1
2	R0022	Decal / Built In The USA / Lg	1
3	R1069	Decal / Warning - Turn Off Blower	1
4	R1054	Decal / Important Check Hoses	1
5	R1051	Decal / Warning - Use Hearing Protection	1

A2222 Top Assembly / Base Model Exploded Parts View



Item #	Part #	Desc.	Qty.
1	V2000	Pro 2 Bagger Top / Gen. 2	1
2	V2001	Screen	1
3	J4009	Short Rubber Strap w/ S-Hook	2
4	K1030	1/4"-20 x 1-1/4" Carriage Bolt	2
5	K0037	Flat Washer / 1/4" (.75 OD x .312 ID x .060 T)	2
6	K1128	1/4"-20 Nyloc Nut	2
7	K0062	Fender Washer / .230 ID x 1.500 OD / Zinc	2
8	K0114	Black Plastic Rivet	11
9	C0067	Dust Guard Mnt. Brkt.	1
10	V1117	Dust Guard	1
11	R1057	Decal / 2" x 4" Red Reflector	2
12	C0026	Grass Deflector	1
13	B0676	Hinge Stop PI.	1
14	K1265	Black Panel Retainer	2



SAFETY DECALS

To promote safe operation, New PECO, Inc. supplies safety decals on all products manufactured. Damage can occur to safety decals either through shipment, use or reconditioning. Contact your local Service Center for replacement decals.





Part# R0022 Designed & Built In The USA



Part #: R2007 Danger - Never Use Hands





Part #: R2008 Danger - Rotating Blades

IMPORTANT Hoses are subject to normal wear and deterioration. Check hoses frequently and if they become defective, install new hoses.

For best collection results, trim hoses so there are no more than 2 inches excess hose with mower deck lowered.

Part #: R1054 Important - Hose Wear





Part #: R1057 - (2) Red Reflectors



Part #: R1051 Warning - Hearing Protection



Part #: R1069 Warning - Turn Off Blower



Part # R0025 Danger - Rotating Blades

Part # R0024 Danger - Keep Hands Clear



SECTION III OPERATING INSTRUCTIONS

General Safety

Only qualified people familiar with this operator's manual and the mower's operator's manual should operate this machine.

Operation And Tips On Mowing

- A. Perform BEFORE EACH USE the maintenance list referenced in Section IV.
- B. Start mower.
- C. With the mower at high idle speed, engage the mower deck.
- D. While seated in the operator's seat, move Bagger PTO switch to the on position. With the PTO assembly engaged, you can proceed to operate the control levers of the mower.

NOTE: If the collection system does not appear to be collecting the grass clippings, disengage the deck and PTO assembly, then, engage the parking brake and turn the mower off. Check upper and lower hoses for any clogs.

To obtain the maximum effectiveness from your collection system, the tips listed below should be followed:

- * Watch your speed- Normal conditions will allow a speed of up to approximately 4 mph, but thick, heavy damp conditions will require reduced ground speed.
- * Mow with sharp blades- A sharp blade cuts cleaner.
- * Wet grass and leaves will decrease effectiveness and will increase horsepower requirements.
- * Mow at higher cutting heights- Remove and mulch no more than 2" of grass length with each mowing. (Experts recommend not cutting off more than 1/3 of the grass blade length at any given time.)
- * Mow twice, at different height settings, (high, then low), if grass is extra tall.
- * Remember that horsepower requirements will vary with the mowing conditions such as type and height of turf grass, moisture content, amount of leaves, whether the terrain is flat or hilly, etc.

Disengagement Of The PTO Assembly

A. To disengage the PTO assembly, move Bagger PTO switch to the off position.

WARNING: The PTO assembly blades will continue to spin. DO NOT TOUCH the PTO assembly, pulleys, or the belt until the tractor is turned off. DO NOT adjust the belt tension until the mower is turned off. Refer to the Belt Installation section of the manual.

Unloading The Collection System

NOTE: To determine when the collection bags are full, follow the following steps:

- A. Stop the forward movement of the mower.
- B. Disengage the mower deck.
- C. Disengage the PTO assembly.
- D. Engage the parking brake.
- E. Once the parking brake has been engaged, then and only then, walk behind the mower and check the collection bags by first unhooking the rubber strap with S-hook that secures the plastic top, then lift the plastic hood. Load in bags should not exceed the height of the installed bag.
- F. To remove the bags from the frame, slide bags out and turn bags over to deposit clippings.
- G. Slide empty bags back onto the frame and secure plastic top with the rubber strap with S-hook.

NOTE: Do not allow collection bags to become overfilled as potential damage may occur to your equipment. Also, be sure to clean the hood screen as needed.

SECTION IV MAINTENANCE

Maintenance Checklist

Before each use:

- 1. Check blades and spindles to be sure that no foreign objects, such as wire or steel strapping bands, are wrapped around them.
- 2. Inspect blades for wear. Replace if necessary. If it is necessary to sharpen the blades, remove the blades from the spindles before sharpening. DO NOT sharpen blades while still attached to the mower.

- Make sure all shields are in place and in good condition. Repair or replace any missing or damaged shields.
- 4. Perform lubrication per instructions.
- 5. Listen for abnormal sounds, which might indicate loose parts, damaged bearings, or other damage. Correct any deficiency before continuing operation.
- 6. With the engine off, engage the blower assembly. Check the belt tension and inspect the pulley belt for cracks or tears.
- 7. Check for wear or deterioration of the upper or lower hoses. If there are any portions of the hose that have been torn or worn through, replace immediately.

After Each Use:

- 1. Clean all debris from machine especially from the container, underneath the belt shields, and safety decals. Replace any missing or illegible decals.
- Inspect the unit for worn or damaged components. Repair or replace before the next use. Any replacement component installed during repair shall include the component's current safety decal specified by the manufacturers to be affixed to the component.
- 3. Under normal usage, the bag material is subject to deterioration and wear and should therefore be frequently checked for necessary replacement. Any replacement bag should be checked to ensure compliance with the original manufacturer's recommendations or specifications.
- 4. Check belt for proper tension.

Lubrication

Gearbox:

- 1. Every 20 hours of use: Check oil levels in gearbox.
- 2. First 60 hours of use: Change oil.
- 3. Every 100 hours of use: Change oil.
- **NOTE:** Oil in gearbox should cover the gears. If not, drain the gearbox and fill using an 80W-90 gear oil. The gearbox ships with 6.0 oz. of oil, but we recommend replacing with a measured 5.5 oz. to fill the gearbox. **DO NOT OVERFILL!**

Blower Assembly:

- **NOTE:** The following is for older PTO models that contain a greaseable zerc fitting. Newer models contain maintenance-free bearings and are without a greasable fitting.
- 1. On initial use: Grease the fitting on the blower shaft.
- 2. Every 25 hours of use: Re-grease the grease fitting.

NOTE: Use only white lithium based grease for lubrication of the shaft on the blower assembly.

SECTION V - PARTS & SERVICE

Parts And Service Information

Collection system owners should record the name and telephone number of their Service Center. Your Service Center will be happy to supply replacement parts, accessories, and do any service or repairs to your collection system. If for any reason your Service Center is unable to service your collection system or supply replacement parts, contact New PECO, Inc. and include the following information on the chart below.

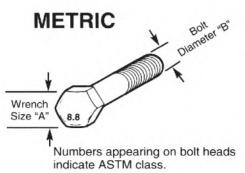
DOCUMENT THE FOLLOWING INFORMATION FOR FUTURE REFERENCE

Unit Engine Size:	
Unit Serial Number:	
Date of purchase:	
Dealer/Distributor Name	:
Address:	State: Zip:
Phone Number:	
	New PECO, Inc.
10 Walden Dr	r Arden, North Carolina 28704
Phone: 1-8	300-438-5823 828-684-1234
1	Fax: 828-684-0858
	ill: <u>peco@lawnvac.com</u>
Ema	iii: <u>pecu@iawiivac.com</u>

TORQUE SPECIFICATIONS

Proper toque for American fasteners used on Peco equipment. Recommended Torque in Foot Pounds (Newton Meters).*

AIVIL						
Bolt Hea	d Markings	WRENCH SIZE (IN.) "A"	BOLT DIAMETER (IN.) "B" AND THREAD SIZE	SAE GRADE 2	SAE GRADE 5	SAE GRADE 8
K	SAE Grade 2 (No Dashes)	7/16	1/4 - 20 UNC	6 (7)	8 (11)	12 (16)
		7/16	1/4 - 28 UNF	6 (8)	10 (13)	14 (18)
		1/2	5/16 - 18 UNC	11 (15)	17 (23)	25 (33)
		1/2	5/16 - 24 UNF	13 (17)	19 (26)	27 (37)
Vrench Size "A"		9/16	3/8 - 16 UNC	20 (27)	31 (42)	44 (60)
		9/16	3/8 - 24 UNF	23 (31)	35 (47)	49 (66)
		5/8	7/16 - 14 UNC	32 (43)	49 (66)	70 (95)
		5/8	7/16 - 20 UNF	36 (49)	55 (75)	78 (106)
		3/4	1/2 - 13 UNC	49 (66)	76 (103)	106 (144)
		3/4	1/2 - 20 UNF	55 (75)	85 (115)	120 (163)
		7/8	9/16 - 12 UNC	70 (95)	109 (148)	153 (207)
	SAE Grade 5 (3 Dashes)	7/8	9/16 - 18 UNF	79 (107)	122 (165)	172 (233)
		15/16	5/8 - 11 UNC	97 (131)	150 (203)	212 (287)
		15/16	5/8 - 18 UNF	110 (149)	170 (230)	240 (325)
		1-1/8	3/4 - 10 UNC	144 (195)	266 (360)	376 (509)
		1-1/8	3/4 - 16 UNF	192 (260)	297 (402)	420 (569)
		1-5/16	7/8 - 9 UNC	166 (225)	430 (583)	606 (821)
		1-5/16	7/8 - 14 UNF	184 (249)	474 (642)	668 (905)
		1-1/2	1 - 8 UNC	250 (339)	644 (873)	909 (1232)
		1-1/2	1 - 12 UNF	274 (371)	705 (955)	995 (1348)
	SAE Grade 8 (6 Dashes)	1-1/2	1 - 14 UNF	280 (379)	721 (977)	1019 (1381)
		1-11/16	1-1/8 - 7 UNC	354 (480)	795 (1077)	1288(1745)
т		1-11/16	1-1/8 - 12 UNF	397 (538)	890 (1206)	1444 (1957)
		1-7/8	1-1/4 - 7 UNC	500 (678)	1120 (1518)	1817 (2462)
		1-7/8	1-1/4 - 12 UNF	553 (749)	1241 (1682)	2013 (2728)
		2-1/16	1-3/8 - 6 UNC	655 (887)	1470 (1992)	2382 (3228)
		2-1/16	1-3/8 - 12 UNF	746 (1011)	1672 (2266)	2712 (3675)
		2-1/4	1-1/2 - 6 UNC	870 (1179)	1950 (2642)	3161 (4283)
		2-1/4	1-1/2 - 12 UNF	979 (1327)	2194 (2973)	3557 (4820)



AMERICAN

*Use 75% of the specified torque value for plated fasteners. Use 85% of the specified torque values for lubricated fasteners.

roper torque for metric fasteners used on Peco equipment. Recommended torque in foot pounds (newton Meters).*

WRENCH SIZE (mm) "A"	BOLT DIA. (mm) "B"	ASTM 4.6	ASTM 8.8	ASTM 9.8	ASTM 10.9
8	5	1.8 (2.4)		5.1 (6.9)	6.5 (8.8)
10	6	3 (4)		8.7 (12)	11.1 (15)
13	8	7.3 (10)		21.1 (29)	27 (37)
16	10	14.5 (20)		42 (57)	53 (72)
18	12	25 (34)	74 (100)	73 (99)	93 (126)
21	14	40 (54)	118 (160)	116 (157)	148 (201)
24	16	62 (84)	167 (226)	181 (245)	230 (312)
30	20	122 (165)	325 (440)		449 (608)
33	22		443 (600)		611 (828)
36	24	211 (286)	563 (763)		778 (1054)
41	27		821 (1112)		1138 (1542)
46	30	418 (566)	1119 (1516)		1547 (2096)

Troubleshooting

Collection System Performance

Problem	Possible Cause	Corrective Action	
	 Cutting blades are bent or unbalanced 	Install new cutting blade	
Abnormal Vibration	Loose blower pulley or pulley assembly	 Tighten the pulley 	
	Impeller blade out of balance	 Contact dealer to replace 	
	Low engine speed	 Always operate collection system at full throttle 	
Reduced collection system performance	 Plugged screen 	 Remove debris, leaves, or grass clippings from the screen 	
	Loose belt	 Replace/tighten belt 	
	 Full collection bags 	 Empty the collection bags 	
	Collection bags are too full	Dump more frequently	
	Low engine speed	 Always operate collection system at full throttle 	
	 Grass is too wet 	 Cut grass when it is dry 	
Blower and hoses plugging too frequently	 Grass is too long 	 Cut the grass several times 	
	 Ground speed is too fast 	Drive slower at full throttle	
	• Worn belt	Replace belt	
	Loose belt	 Adjust the pulley and tighten belts 	
	Collection bags are too full	Dump more frequently	
Debris blowout	 Plug/clog in the collection system 	 Clean the collection system 	
	Ground speed is too fast	 Drive more slowly at full throttle 	
	Plug in the blower housing	Clean the blower housing	
Impeller doesn't rotate freely	Worn impeller blade	Contact dealer to replace	
	 Shaft bearings bad/failing 	 Contact dealer to replace 	



New PECO, Inc. 10 Walden Dr | Arden, North Carolina 28704 Phone: 1-800-438-5823 | 828-684-1234 Fax: 828-684-0858 Email: <u>peco@lawnvac.com</u> Website: www.lawnvac.com