

MANUAL PART#: Q0541

Initial Release - May 2019

# GRASS COLLECTION SYSTEM TABLE OF CONTENTS

# SECTION

#### PAGE SECTION

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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** 



Black letters on YELLOW

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

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

It may also be used to alert against unsafe practices.

avoided, will result in minor or moderate injury.

It may also be used to alert against unsafe practices.

2017 (v1.0)

# PECO LIMITED WARRANTY FOR NEW PRODUCTS

#### A. WHAT IS UNDER WARRANTY?

PECO extends the following warranties to the original purchaser of each new PECO consumer product subject to the following limitations.

**1. PRODUCT WARRANTY:** Any part of any consumer product, which is defective in material or workmanship as delivered to the purchaser will be repaired or replaced, as PECO elects, without charge for parts or labor, if the defect appears within 12 months from the date of delivery of the product to the original purchaser. ALL DEFECTIVE PARTS MUST BE RETURNED TO PECO FOR INSPECTION TO DETERMINE VALIDITY OF WARRANTY CLAIMS. Freight and mailing will be borne by the customer.

**2. PARTS REPLACED DURING WARRANTY:** Any new PECO 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, before the expiration of the original warranty period, whichever is later.

**3. COMMERCIAL USE:** Products put to personal use around a single household or residence is considered 'Residential'; Products put to any business use (agricultural, commercial, or industrial) or used at multiple locations is considered 'Commercial.' Products designated as 'Commercial' are warrantied for 12 months from the date of delivery of the product to the original purchaser when used for in commercial applications. Products designated as 'Residential' are warrantied for 90 days from the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when the date of delivery of the product to the original purchaser when in commercial applications.

#### **B. SECURING WARRANTY ADJUSTMENTS**

Call PECO for Return Authorization. Damaged or broken parts other than engines or batteries, must be returned to New PECO, Inc. at 10 Walden Drive, Arden, NC 28704 before any warranty adjustment can be authorized. At the time of requesting warranty adjustment, the purchaser must present evidence of the date of delivery of the product. The purchaser shall pay any charge for the product to and from Arden, NC.

#### C. ITEMS NOT COVERED BY PECO WARRANTY

Engines and batteries attached to PECO products are covered under a separate warranty by the respective manufacturer.

#### D. UNAPPROVED ALTERATION OR MODIFICATION

All obligations of New PECO, Inc. under this warranty shall be terminated if products are altered or modified in ways not approved by New PECO, Inc.

#### E. ACCIDENTS AND NORMAL MAINTENANCE

The warranty covers only defective material and workmanship. It does not cover depreciation or damage caused by normal wear, accident, improper use or abuse of products. The cost of normal maintenance and normal replacement of service items such as belts, cutting blades, hoses, etc., which are not defective shall be paid for by the purchaser.

#### F. NO REPRESENTATIONS ADDITIONAL WARRANTIES, DISCLAIMER

Neither New PECO, Inc. nor any company affiliated with it 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.

#### G. PRODUCTS USED FOR RENTAL OR LEASE PURPOSES ARE WARRANTIED FOR 45 DAYS FROM DATE OF ORIGINAL SALE ONLY

#### H. 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 PECO be liable for special incidental or consequential damages.

#### **1. NO SERVICE CENTER WARRANTY**

The selling Service Center 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 dealer has no authority to make any representation or promise on behalf of PECO or to modify the terms of this warranty in any way.

# **Section I - INTRODUCTION AND DESCRIPTION**

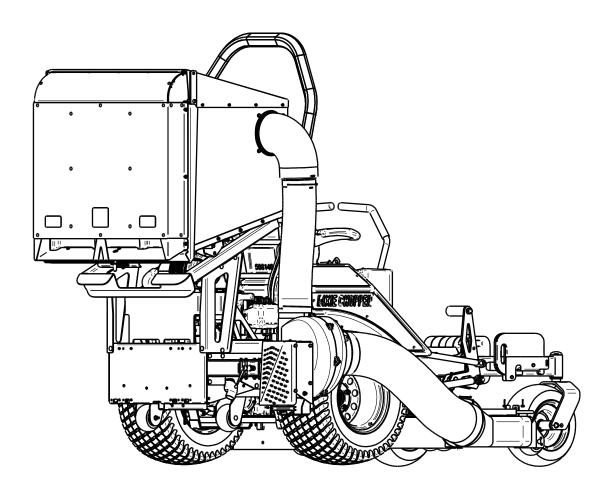
#### Introduction

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 push of the overcenter linkage on the right side of the unit. Once the bags are full with clippings, they can be easily released for dumping.

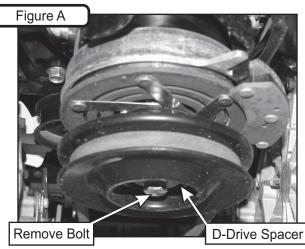


# Section II - INSTALLATION FOR USE

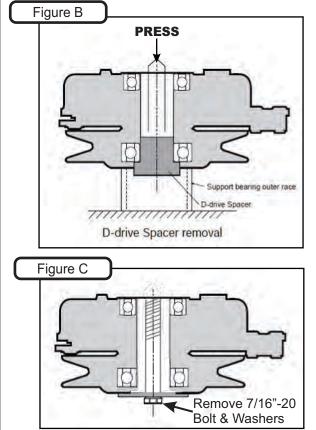
### Preparation Of Mower

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.

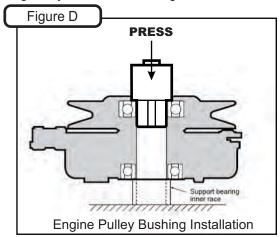
From the underside of the engine, disconnect the wiring harness attached to the electric clutch. Remove the bolt and electric clutch from the mower. Refer to Figure A.



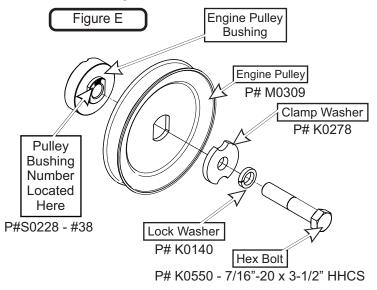
Upon removal of clutch determine if your mower is equipped with a D-drive spacer. If so, then proceed to Figure B. If your mower is equipped with bolt, fender and lock washer without D-drive spacer proceed to Figure C. Remove the D-drive spacer using an arbor press or equivalent. On removal, adjacent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



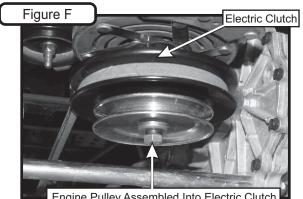
The engine pulley assembly must be installed using an arbor press or equivalent. During installation, opposite bearing inner race must be supported or bearing damage may occur. Refer to Figure D.



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.

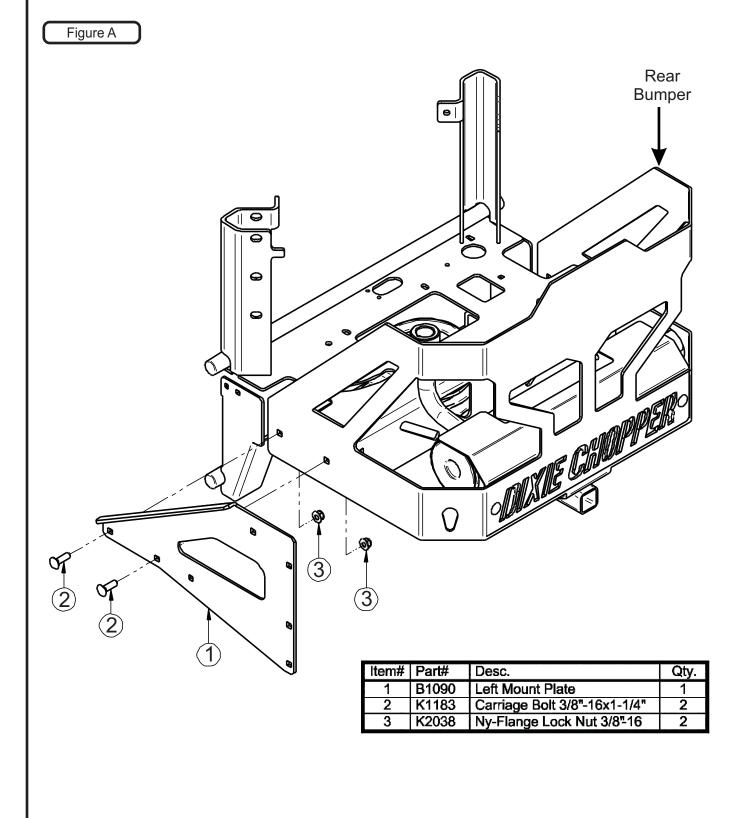


Engine Pulley Assembled Into Electric Clutch

#### **Left Mount Plate Installation**

Before installing the Left Mount Plate (Item #1), remove the hardware fastening the lower left side of the mower's rear bumper to reveal (2) bolt holes.

Next, align the bottom (2) left bolt hole of the Left Mount Plate, to the ones on the lower left side of the mower's rear bumper. Secure the Left Mount Plate to mower by using (2) 3/8"-16 x 1-1/4" Carriage Bolts (Item #2) and (2) 3/8-16" Ny-Flange Lock Nuts. Refer to Figure A.

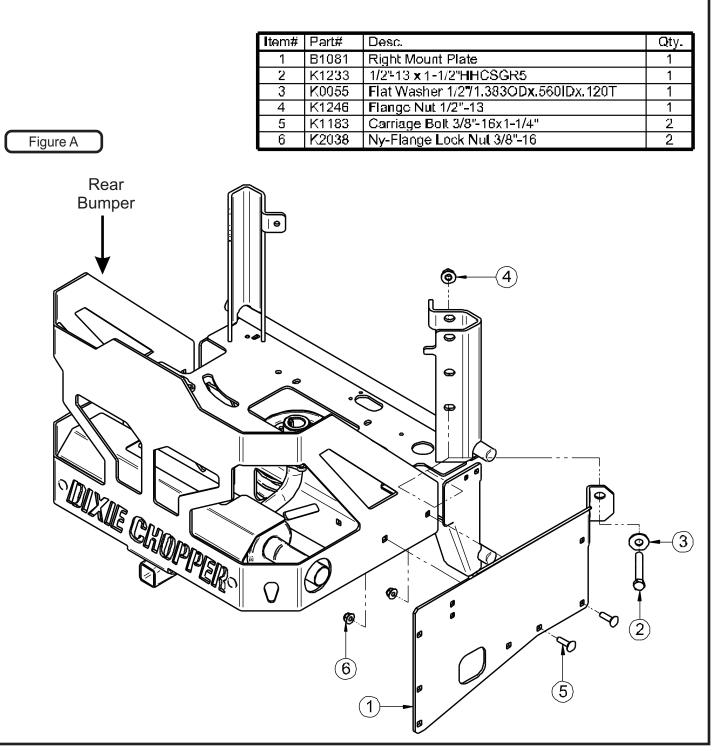


#### **Right Mount Plate Installation**

Before installing the Right Mount Plate (Item #1), remove the hardware fastening the lower right side of the mower's rear bumper to reveal (2) bolt holes. Then remove the hardware from the lower bolt hole of the right side of the ROPS to reveal (1) bolt hole.

Next, align the bottom (2) right bolt hole of the Right Mount Plate to the ones on the lower left side of the mower's rear bumper and align the top right bolt hole of the Right Mount Plate to the one on the ROPS. Secure the Right Mount Plate to the mower by using (1) 1/2"-13 x 1-1/2" Hex Bolt (Item # 2), (1) 1/2" Flat Washer (Item #3), (1) 1/2"-13 Flange Nut (Item #4), (2) 3/8"-16 x 1-1/4" Carriage Bolts (Item #5) and (2) 3/8-16" Ny-Flange Lock Nuts (Item #6). Refer to Figure A.

Leave the (2) 3/8"-16 x 1-1/4" Carriage Bolt and (2) 3/8"-16 Ny-Flange Lock Nuts relatively loose for the installation of the PTO Mount Arm.

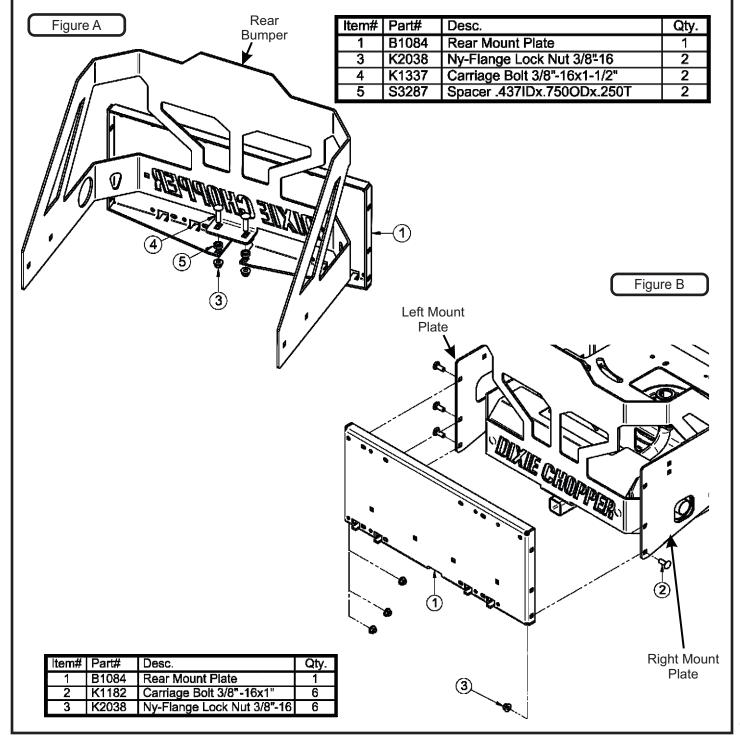


#### **Rear Mount Kit Assembly Installation**

Before the installation of the Rear Mount Plate (Item #1), remove the existing hardware underneath the rear bumper around the hitch receiver.

Position the Rear Mount Plate to the mower's rear bumper and align the bottom (2) bolt holes located on the bottom tab of the Rear Mount Plate to those on the mower's rear bumper. Secure the Rear Mount Plate relatively loose here using (2) 3/8"-16 x 1-1/2" Carriage Bolts (Item #4), (2) Spacers (Item #5) and (2) 3/8"-16 Ny-Flange Lock Nuts (Item #3). Refer to Figure A.

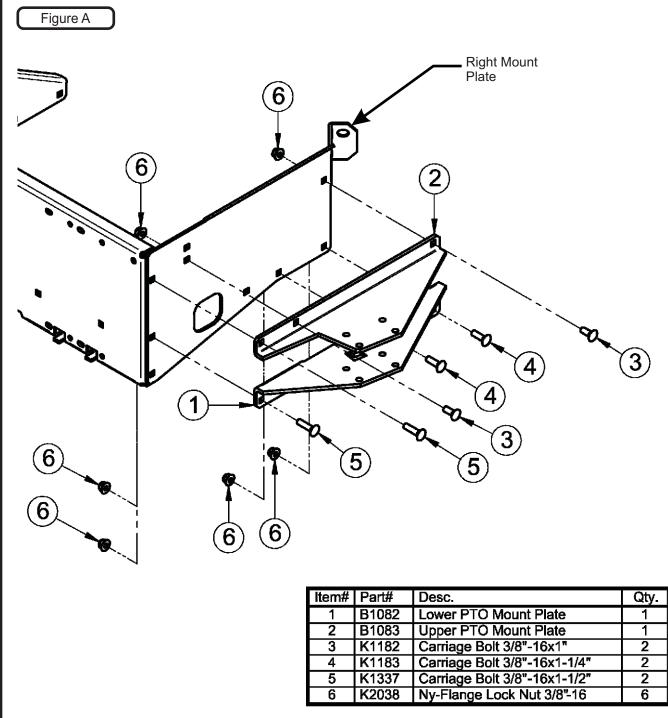
Next, align the side bolt holes of the Rear Mount Plate to those on the Left and Right Mount Plate. Secure the Rear Mount Plate to the Left Mount Plate using (3) 3/8"-16 x 1" Carriage Bolts (Item #2) and (3) 3/8"-16 Ny-Flange Lock Nuts (Item #3). Secure the Rear Mount Plate to the Right Mount Plate Using (1) 3/8"-16 x 1" Carriage Bolt (Item #1) and (1) 3/8"-16 Ny-Flange Lock Nut (Item #3). Refer to Figure B. Tighten all hardware at this time.



#### **PTO Mount Plate Installation**

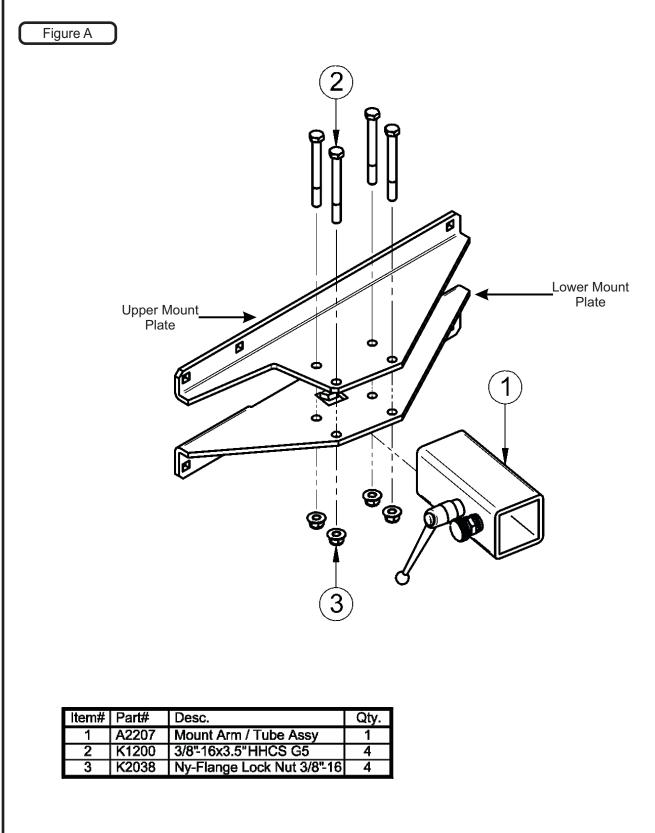
Before Installing the Lower Mount Plate (Item #1) loosen and remove the (2) bottom pair of hardware previously used to secure the bottom right of the Right Mount Plate. To install the Lower PTO Mount Plate (Item #1), Align the row of carriage bolt holes of those of the Lower PTO Mount Plate located on the bottom of the Right Mount Plate. Secure the Lower PTO Mount Plate by using (1) 3/8"-16 x 1" Carriage Bolt (Item #3), (1) 3/8"-16 x 1-1/4" Carriage Bolt (Item #4), (1) 3/8"-16 x 1-1/2" Carriage Bolt (Item #5) and (3) 3/8"-16 Ny-Flange Lock Nuts (Item #6). Refer to Figure A.

To Install the Top Mount Plate (Item #2), align the row of carriage bolt holes to those located on the top of the Right Mount Plate. Secure the Top Mount Plate by using (1) 3/8"-16 x 1" Carriage Bolt (Item #3), (1) 3/8"-16 x 1-1/4" Carriage Bolt (Item #4), (1) 3/8"-16 x 1-1/2" Carriage Bolt (Item #5) and (3) 3/8"-16 Ny-Flange Lock Nuts (Item #6). Refer to Figure A.



#### Mount Arm / Tube Assembly Installation

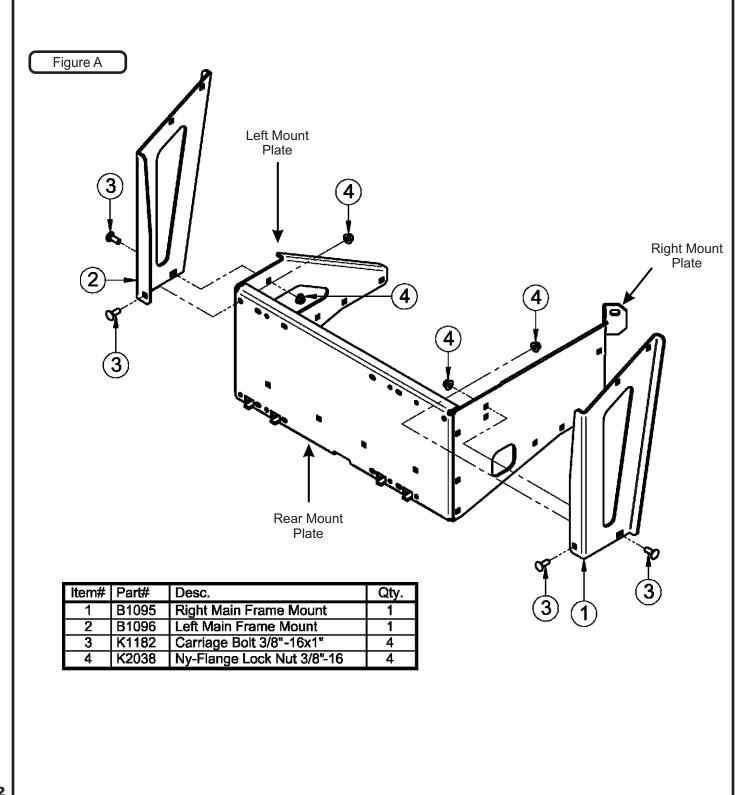
Position and place the Mount Arm / Tube Assembly (Item #1) between the Upper and Lower PTO Mount Plate. Make sure the back of the Mount Arm / Tube is resting against the bottom tab of the Lower PTO Mount Plate. Secure the Mount Arm / Tube to the Upper and Lower Mount Plate by using (4) Grade 5 3/8"-16 x 3-1/2" HHCS (Item #2) and (4) 3/8"-16 Ny-flange Lock Nuts (Item #3). Refer to Figure A.



#### **Main Frame Mount Installation**

Align either the Right Main Frame Mount (Item #1) or the Left Main Frame Mount (Item #2) to the Mount Plates. Make sure the bolt holes of either Main Frame Mounts are aligned to those on the Rear Mount Plate and either Right or Left Mount Plate. Secure either Main Frame Mounts to the Mount Plates by using (2) 3/8"-16 x 1" Carriage Bolts (Item #3) and (2) 3/8"-16 Ny-Flange Lock Nuts (Item #4) PER side. Refer to Figure A.

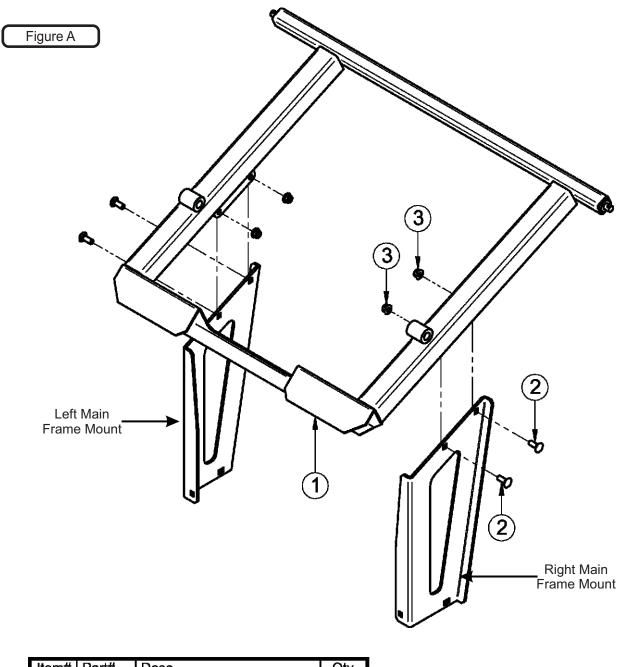
Keep all hardware during this step relatively loose for the installation of the Main Frame Assembly.



#### **Main Frame Assembly Installation**

Align the bolt holes of the Main Frame Assembly (Item #1) to those on the Left and Right Main Frame Mount. Be sure the Main Frame Assembly is sitting on the inside of both Main Frame Mounts. Secure the Main Frame Assembly by using (2) 3/8"-16 x 1" Carriage Bolts (Item #2) and (2) 3/8"-16 Ny-Flange Lock Nuts (Item #3) PER side. Refer to Figure A.

Tighten all hardware at this time.

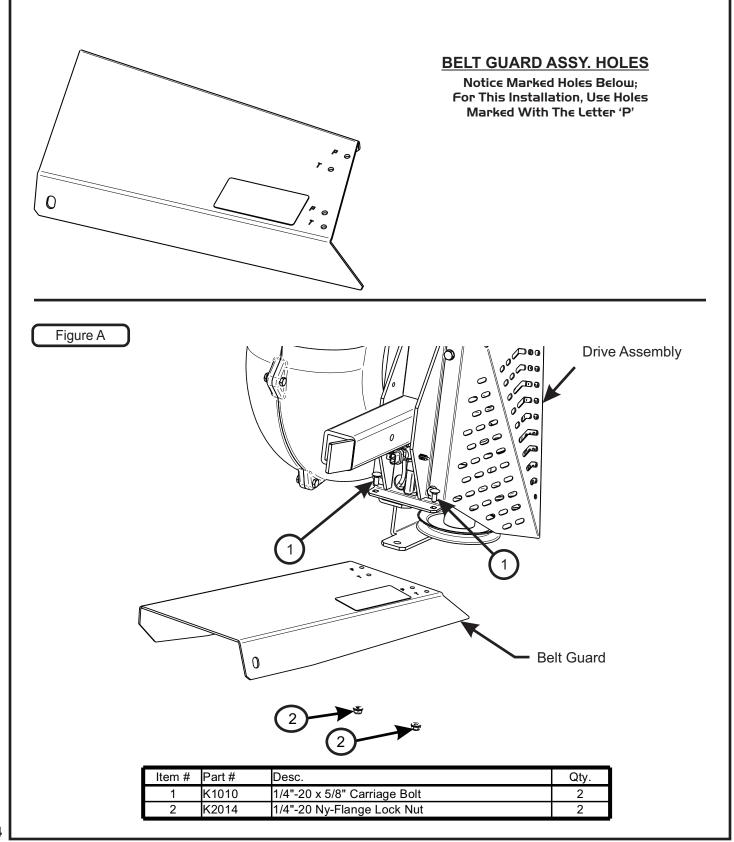


Item#	Part#	Desc.	Qty.
1	A1192	Main Frame Assembly	1
2	K1182	Carriage Bolt 3/8"-16x1"	4
3	K2038	Ny-Flange Lock Nut 3/8"-16	4

#### **PTO Drive Assembly**

Once the Mount Arm Assembly is installed and secured to the mower, assemble the Drive Assembly P#(A2061\_01), Belt Guard Assembly P#(A2069\_02) & Idler Mount Assembly P#(A2067\_02).

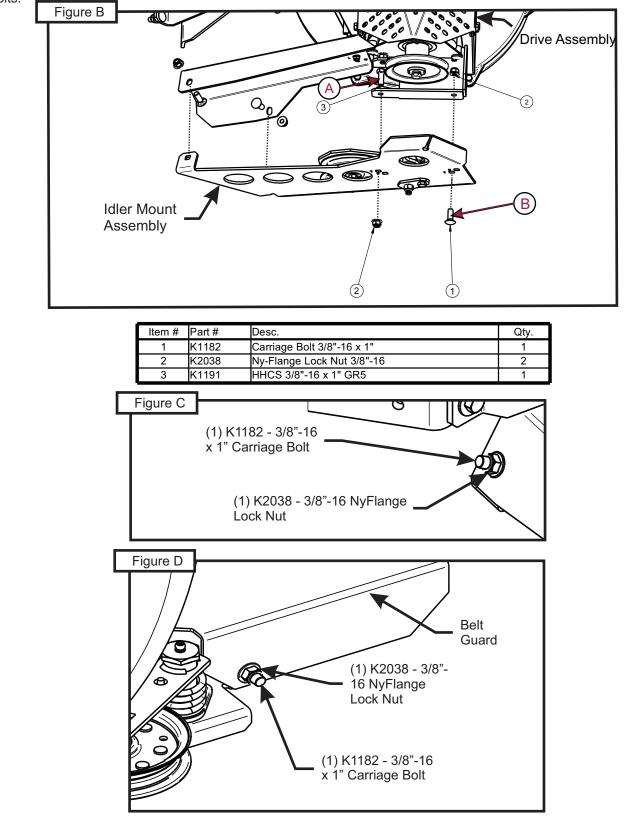
First, attach the Belt Guard Assembly P#(A2069\_02) to the Drive Assembly P#(A2061\_01) using (2) 1/4"-20 x 5/8" Carriage Bolts P#(K1010) and (2) 1/4"-20 Ny-Flange Lock Nuts P#(K2014). Refer to Figure A. Leave Bolts Loose.



### **PTO Drive Assembly (Continued)**

Attach the Idler Mount Assembly P#(A2067\_02) to the Drive Assembly using (1) 3/8"-16 x 1" HHCS (A) P#(K1191), (1) 3/8"-16 x 1" Carriage Bolt (B) P#(K1182) and (2) 3/8"-16 Ny-Flange Lock Nuts P#(K2038). Refer to Figure B. Leave Bolts Loose (Note: Orientation of bolts A & B.)

Next, secure the Idler Mount Assembly P#(A2067\_02) to the Belt Guard Assembly P#(A2069\_02) using (2) 3/8"-16 x 1" Carriage Bolts P#(K1182) and (2) 3/8"-16 Ny-Flange Lock Nuts P#(K2038). Refer to Figure C & D. Tighten All Bolts.

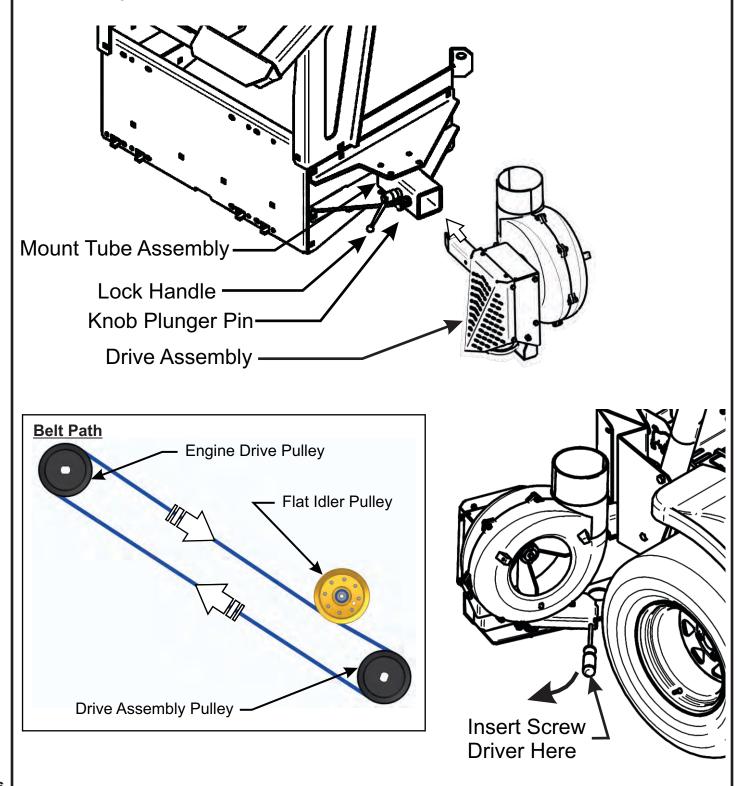


### **Drive Assembly and Belt Installation**

(Note: It is recommended that someone assist during this step.)

Insert the Drive Assembly into the receiver tube on the Mount Arm Assembly until the Knob Plunger Pin engages. Once in place, turn Lock Handle clockwise until tight. Next, feed the AK83 Belt P#(M0315) between the Belt Guard and the Idler Mount Assembly. Place belt around the Engine Drive Pulley on the underside of the mower. While one person inserts a screw driver (or similar tool) into the Idler Mount Assembly and rotates lever arm clockwise, enough to relieve all tension from belt, place belt around the Drive Assembly Pulley. Once the belt is in position, carefully release the tension to tighten belt.

Refer to the images below.



### **Boot Kit Installation**

Step 1 - Remove the mower's Operator Controlled Discharge Chute (OCDC) and attach the Boot Plate Adapter (Item #7) to the far right mounting hole as shown in Figure B using (1) 3/8"-16 x 1" Hex Head Cap Screw (Item #8), (1) 3/8" Flat Washer (Item #9) and (1) 3/8"-16 Ny-Flange Lock Nuts (Item #6).

Step 2 - Secure the Boot Plate (Item #2) to the Aluminum Boot (Item #1) using (2) 3/8"-16 x 1" Carriage Bolts (Item #5) and (2) 3/8"-16 Ny-Flange Lock Nuts (Item #6). Insert the Carriage Bolts from the inside of the Boot so the threads are on the top of the Boot. This will prevent grass clippings from collecting on the threads. Leave the hardware loose until the boot plate has been attached to the mower deck.

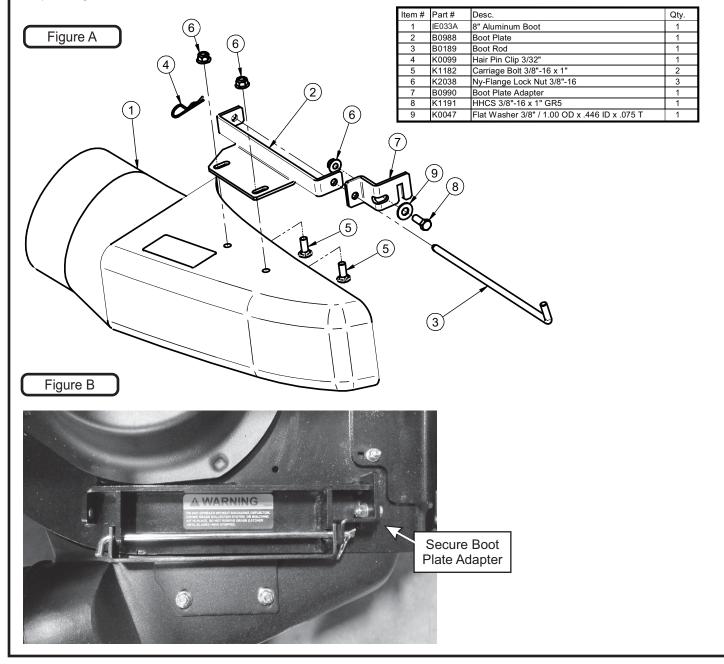
Step 3 - Align Boot Plate Bushings to the Boot Plate Adapter Bushings.

Step 4- Insert Boot Rod (Item #3) through the Boot Plate Adapter & Boot Plate Bushings.

Step 5 - Secure the Boot Rod using a Hair Pin Clip (Item #4).

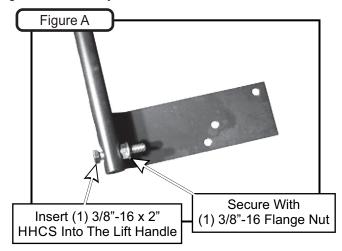
Step 6 - With the Carriage Bolts (Item #5) still loose, adjust the position of the boot so that there is no gap between the mower deck and the boot.

Step 7 - Tighten all hardware at this time.

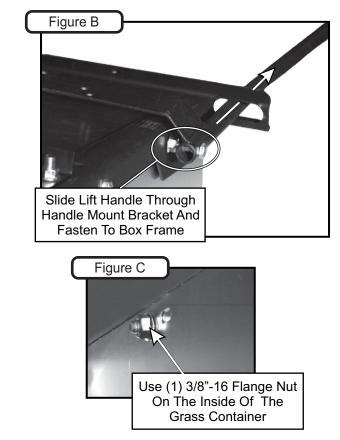


#### Lift Handle Installation

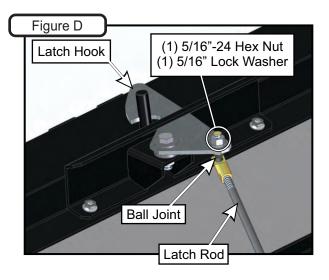
**NOTE:** Before continuing the Lift Handle installation, have someone assist you in turning the Box Assembly upside down. Insert (1) 3/8"-16 x 2" HHCS P#(K1208) into the Lift Handle P#(A0897), and secure with (1) 3/8"-16 Flange Nut P#(K1215). Thread the flange nut onto the bolt upside down, as shown in Figure A. Do not tighten the nut fully at this time.



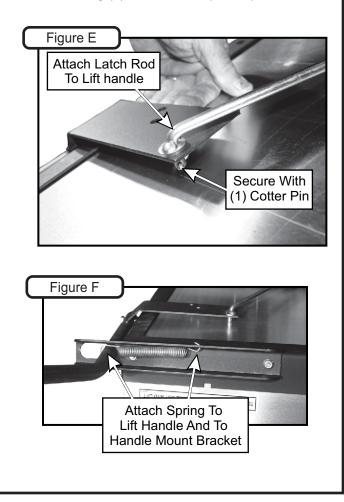
Slide the Lift Handle through the slot on the Handle Mount Bracket. Insert the Lift Handle into the Box Frame as shown in Figure B, and secure using (1) 3/8"-16 Flange Nut P#(K1215) on the inside of the Box as shown in Figure C. Now test the movement of the handle. It should have full-range of movement in the slot. If the handle does not have full-range of movement, adjust the 3/8"-16 Flange Nut from step A. Once achieved, tighten the fasteners.



Fasten the Ball Joint P#(K1442) to the end of the Latch Rod P#(A2107). Tighten the Ball Joint to approximately half-way down the threads on the Latch Rod. Attach the Ball Joint to the Latch Hook as shown in Figure D, using (1) 5/16"-24 Hex Nut P#(K1444) and (1) 5/16" Lock Washer P#(K0043).



Attach the other end of the Latch Rod to the Lift Handle, as shown in Figure E. Attach one end of the Spring P#(J0176) to the Lift Handle and the other end of the Spring to the Handle Mount Bracket as shown in Figure F. Adjust the Ball Joint up or down on the Latch Rod threads until the Latch Hook closes completely. After adjusting the Latch Hook, secure the Latch Rod to the Lift Handle using (1) Cotter Pin P#(K0094).

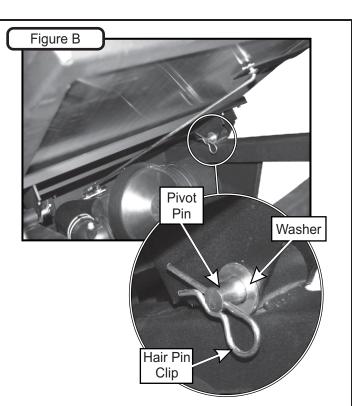


#### **Aluminum Box Assembly Installation**

**NOTE:** It is recommended that two extra people assist in mounting the Box Assembly. Two can lower the Box onto the frame while the third person inserts the Pivot Pins P#(K0172) through the holes. Insert the Pins from the outside to the inside. Secure with (1) 5/8" Washer P#(K0058) and (1) 5/32" x 2-5/8" Hair Pin Clip P#(K0088) per Pivot Pin (Figure B). Reattach the bottom ends of the door opening linkages to the Main Frame by using (1) Rue-Ring Cotter Pin P#(K1437) per side. To test the functionality of the dump mechanism, pull the Lift Handle away from the unit, and lift upward. The Door of the Box Assembly should open and the Box should pivot clockwise towards the ground.

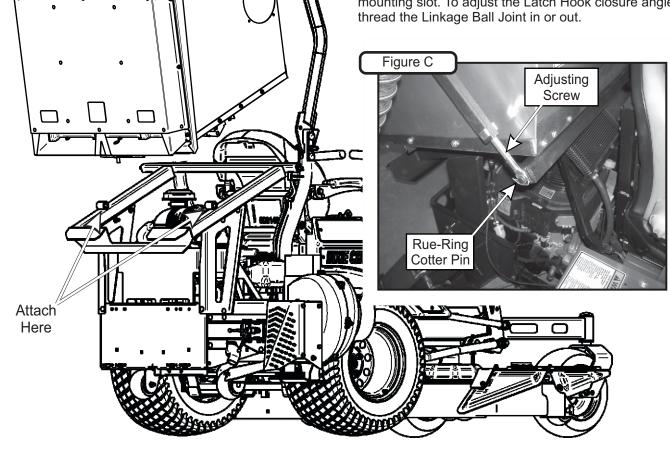
Box Assembly

Figure A



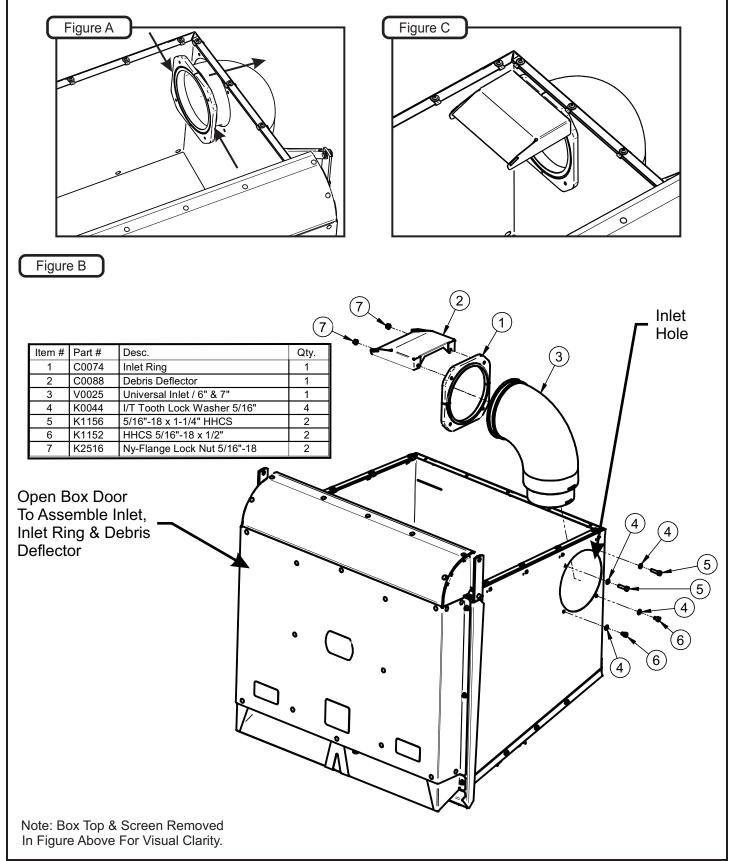
#### **Dump Mechanism Adjustment**

The mechanism may be adjusted in three places, at the Adjusting Screw P#(K1435), at the Latch Hook Pivot Bolt and the linkage Ball Joint. To change the door closure tightness, thread the Adjusting Screw (Figure C) in or out or by adjusting the Latch Hook Pivot Bolt within its' mounting slot. To adjust the Latch Hook closure angle, thread the Linkage Ball Joint in or out.



#### Inlet, Inlet Ring & Debris Deflector Installation

Open box door. From inside box, slide Inlet (Item #3) halfway into inlet hole (See Figure A). Take each half of the Inlet Ring (Item #1) and attach around matching groove in Inlet (Item #3). Slide Inlet (Item #3) & Inlet Ring (Item #1) against inlet hole and align four holes. Fasten Inlet Ring (Item #1) bottom holes using (2) 5/16" IT Tooth Lock Washers (Item #4) & (2) 5/16"-18 x 1/2" HHCS (Item #6) (See Figure B). Fasten Inlet Ring (Item #1) top holes using (2) 5/16" IT Tooth Lock Washers (Item #4) & (2) 5/16"-18 x 1/2" HHCS (Item #6) (See Figure B). Slide Debris Deflector (Item #2) over inside top bolt threads (Item #5). Fasten Debris Deflector (Item #3) using (2) 5/16"-18 Ny-Flange Lock Nuts (Item #7). Final assembly should resemble Figure C.



#### Wiring Harness Installation

# 

To Prevent Serious Injury-Proper Installation Of Safety Interlock Harness Is Mandatory. Please Check That All Interlock Points Work Correctly Once Installed.

Route the 2 Way Metri-Pack Connector (P#P0280) around the right side of the engine and down between the side of the ROPS to the right of the Right Mount Plate connecting the Quick Connect Plug (#1) located on the PTO Drive. Refer to Figure A.

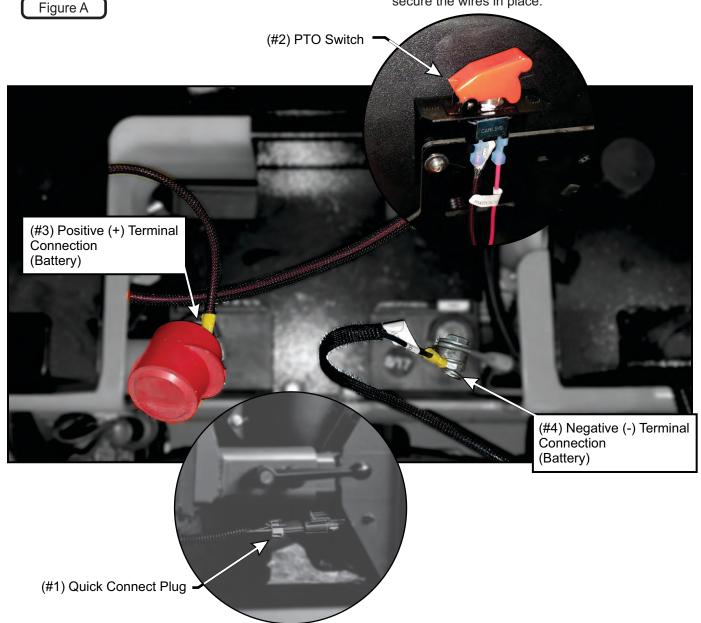
Attach the Positive Lead from the Wiring Harness (P#A2144) connected to the Metri-Pack 2 Way Connector (P#P0280) to the PTO Switch (P#J2001) by connecting the Female Disconnector (P# P0106) from the Positive Lead to the Switch Terminal (A) on the Switch. Refer to Figure B on the next page.

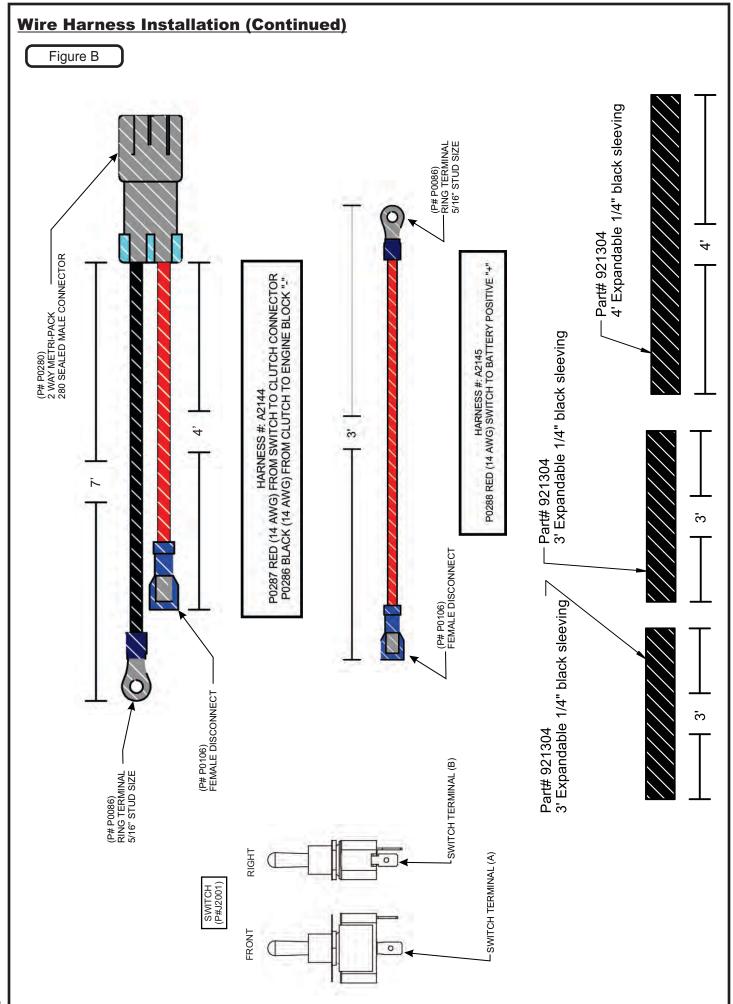
Insert the PTO Switch in and through the PTO Switch Bracket (P#B1020) then attach and secure the Safety Cover (P#P0073).

Before routing the PTO Switch (#2), locate and loosen the existing cap head screw located on the bottom right side of the mower's control panel. Attach the PTO Switch Bracket by sliding it behind the cap head screw and tightening the screw. Refer to Figure A. (Note: This is the recommended positioning of the PTO Switch, the PTO Switch could be mounted anywhere within reasonable distance and clearance to the right of the operator's seat)

Route the PTO Switch to the positive terminal of the battery (#3) using the Ring Terminal (P#P0086) of the Positive Lead to secure the attachment. Route the Negative Lead to the engine block (#4) using the Ring Terminal of the Negative Lead to secure the attachment. Refer to Figure A.

Use the zip ties (P#J0245) that are provided to secure the wires in place.





#### 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 with another Hose Clamp P#(J0060). Make sure both ends are securely fastened by tightening the Hose Clamp.

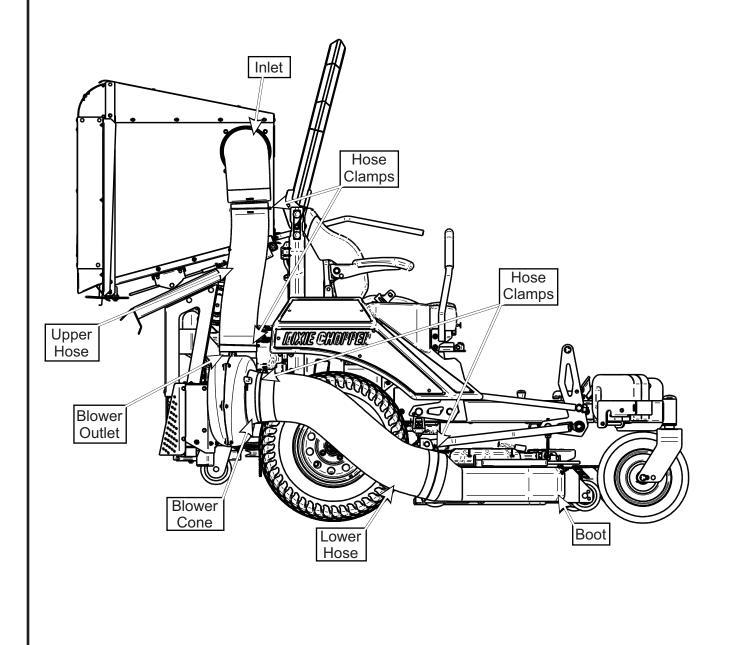
#### Lower Hose To Blower Cone Installation

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:** First remove the 5/16"-24 x 1" HHCS P#(K0428) **(#1)**, Taper Lock Bushing Washer P#(K0284) **(#3)**, (2) 5/16 Flat Wahers P#(K0042) and Spacer Bushing P#(S0159) **(#4)** from the Taper-Lock Bushing P#(S0157) **(#5)**. Next remove the (2) 1/4"-20 x 1" HHCS **(#2)** and place them into the threaded holes of the Taper-Lock Bushing **(#5)**. Gradually thread each bolt evenly into the Taper-Lock Bushing, forcing the blade to break-away from the Taper-Lock Bushing. If the Impeller will not move, carefully hit the base of the Impeller, between each vein, with a hammer, then try again.

**To Replace:** Place Impeller Blade over the engine shaft. Slide the Taper-Lock Bushing **(#5)** on to the engine shaft and into the Impeller Blade, aligning the **non-threaded** holes of the Taper-Lock Bushing to the threaded holes of the Impeller Blade. Fasten by using (2) 1/4"-20 x 1" HHCS **(#2)**, (1) Spacer Bushing **(#4)** (1) Taper-Lock Bushing Washer **(#3)**, and (1) 5/16"-24 x 1" HHCS **(#1)**. Torque to the proper specifications in the torque chart on the back of this manual. Next, rotate the Impeller Blade to ensure that the blade is clear of contact on all sides of the blower housing.



#### Weight Kit Installation

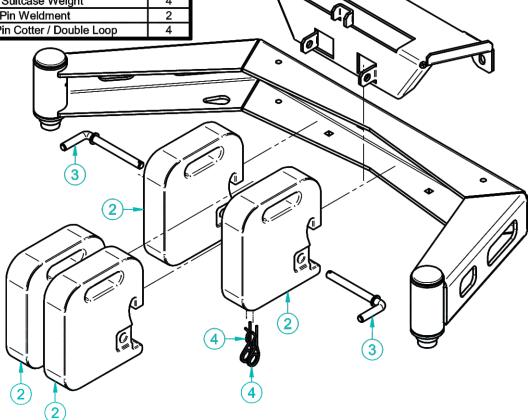
Remove the existing front name plate by removing the top two screws and bottom two screws. Refer to Figure A. Remove the footrest to expose (4) large carriage bolts and nuts, located behind the name plate. Remove and keep (2) existing nuts from the existing carriage bolts, (1) from the far lower left and (1) from the far lower right. Refer to Figure B. Place Weight Bracket (#1) over the front of the mower and under the footrest as shown in Figure B. Replace and tighten the (2) nuts removed earlier to the existing carriage bolts.



Insert (2) Suitcase Weights (#2) per side onto the weight bracket & align the holes of the Suitcase Weights to the holes of the Weight Bracket. Secure each set of (2) Suitcase Weights by using (1) Hitch Pin (#3) and (1) Hair Pin Cotter (#4).

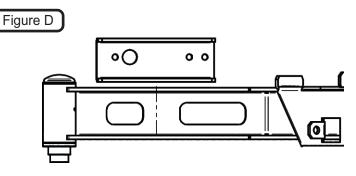
#### Figure C

Item #	Part #	Desc.	Qty.
1	B0989	Weight Bracket	1
2	Y0025	28 lb. Suitcase Weight	4
3	A0312	Hitch Pin Weldment	2
4	K1478	Hair Pin Cotter / Double Loop	4



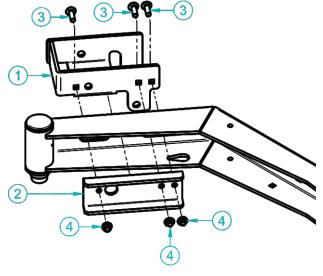
### **Weight Kit Installation** (Continued)

Position and align the Caster / Weight Bracket Support (Item #2) to the inside of the right caster of the mower. Refer to Figure D. Next, align the Right Caster / Weight Bracket (Item #1) to the outside of the mower's right caster and secure the Right Caster / Weight Bracket using (3) 3/8"-16 x 1-1/4" Carriage Bolts (Item #3) and (3) 3/8"-16 Ny-Flange Lock Nuts (Item #4). Refer to Figure D.

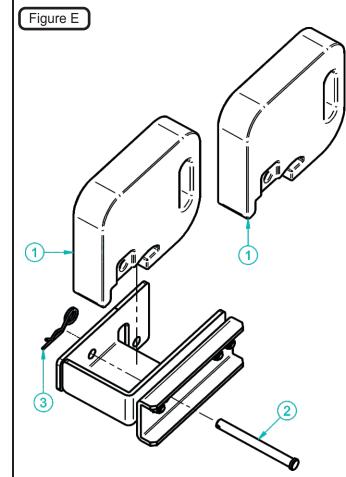


NOTE: Position the bolt holes with the through holes of the Right Caster

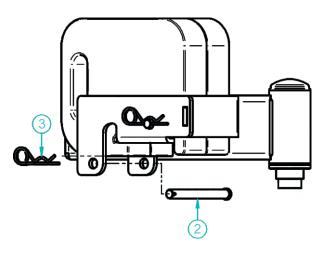
Item #	Part #	Desc.	Qty.
1	B1098	Right Caster / Weight Bracket	1
2	B1099	Caster / Weight Bracket Support	1
3	K1183	Carriage Bolt 3/8"-16 x 1-1/4"	3
4	K2038	Ny-Flange Lock Nut 3/8"-16	3



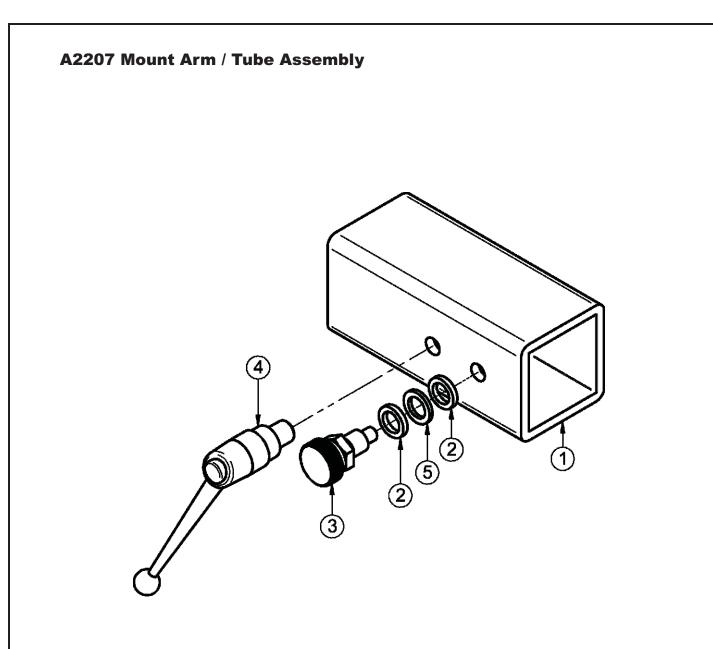
Insert (2) Suitcase Weights (Item #1) into the Right Caster / Weight Bracket and secure the Suitcase Weights using (2) 1/2" x 5" Clevis Pin (Item #2) and (2) Hair Pin Cotter / Double Loop (Item #3). Refer to Figure E.



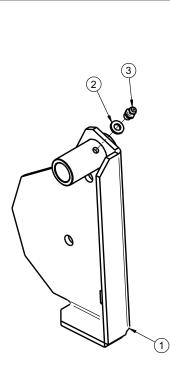
Item #	Part #	Desc.	Qty.
1	Y0025	28 lb. Suitcase Weight	2
2	K1482	1/2" x 5" Steel Clevis Pin	2
3	K1478	Hair Pin Cotter / Double Loop	2



NOTE: The Clevis Pin and Hair Pin Cotter used under the weights are used to lock the weights in place.



Item#	Part#	Desc.	Qty.
1	B0931	Tube / Mount Arm	1
2	J0013	Nylon Flat Washer 1/2" x .750"OD Grade 6/6	2
3	J0020	Knob Plunger Pin 1/2"-13	1
4	J0009	Adjustable Handle 1/2"-13 x .59 Male	1
5	K0027	Flat Washer 1/2"/ .787 OD x .512 ID x .090 T	1

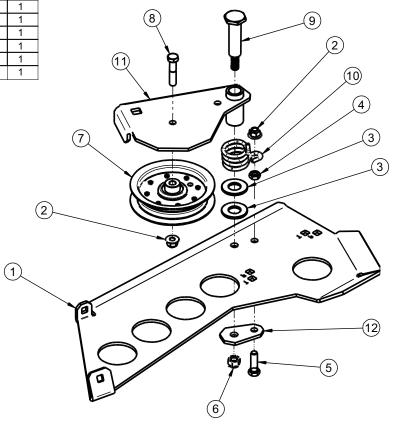


Item #	Part #	Desc.	Qty.
1	A2070_01	Idler Arm Weldment	1
2	K1467	Flat Washer M6 x 12mm OD	1
3	J0801	1/4"-28 Zirc Fitting	1

# A2067\_02 Idler Mount Assembly

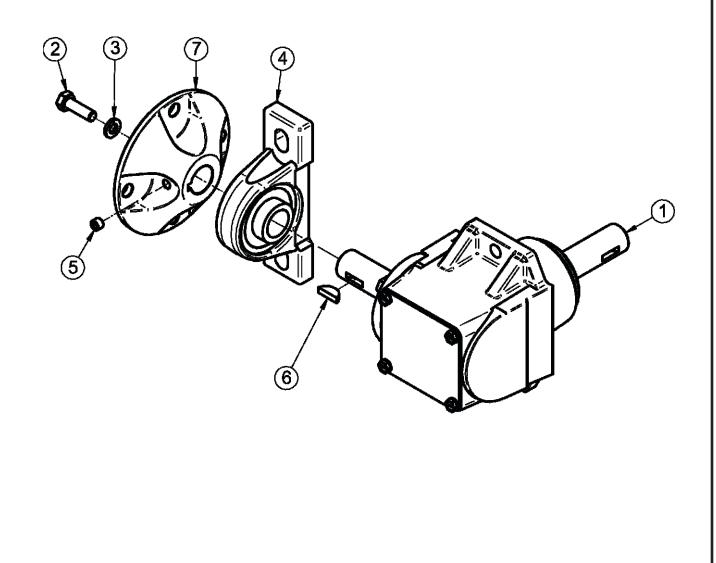
A2092 Idler Arm Assembly

Part #	Desc.	Qty.
B0958_02	Idler Mnt PI	1
K2038	Ny-Flange Lock Nut 3/8"-16	2
K1463	Flat Washer .720 ID x 1.500 OD x .250 T	2
K1219	Jam Nut 3/8"-16	1
K1192	HHCS 3/8"-16 x 1-1/4" GR5	1
K0329	Nylock Nut 7/16"-14 GR8	1
M0003	Idler Pulley	1
K1462	HHCS 3/8"-16 x 1-3/4" GR8	1
K1464	Shoulder Bolt 7/16"-14 / Idler	1
J0024	Torsion Spring	1
A2092	Idler Arm Assy	1
B0974	Idler Base Plate	1
	B0958_02 K2038 K1463 K1219 K1192 K0329 M0003 K1462 K1464 J0024 A2092	B0958_02         Idler Mnt PI           K2038         Ny-Flange Lock Nut 3/8"-16           K1463         Flat Washer .720 ID x 1.500 OD x .250 T           K1219         Jam Nut 3/8"-16           K1192         HHCS 3/8"-16 x 1-1/4" GR5           K0329         Nylock Nut 7/16"-14 GR8           M0003         Idler Pulley           K1462         HHCS 3/8"-16 x 1-3/4" GR8           K1464         Shoulder Bolt 7/16"-14 / Idler           J0024         Torsion Spring           A2092         Idler Arm Assy



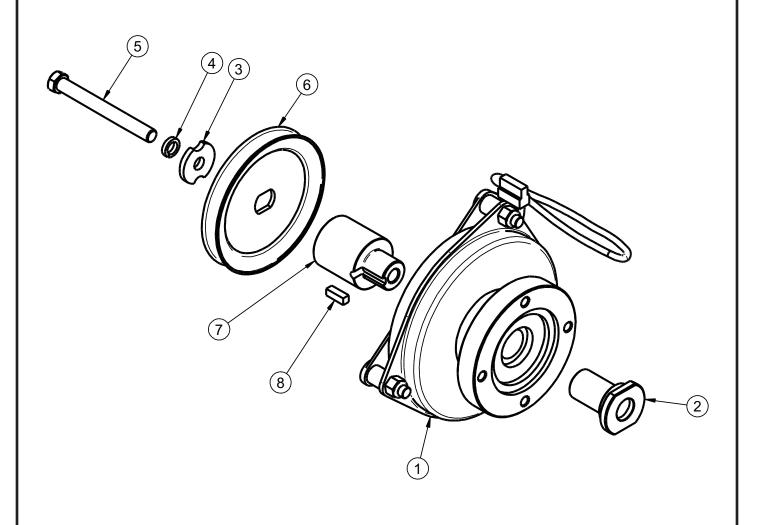
#### A2058 Gearbox Sub-Assembly

Item #	Part #	Desc.	Qty.
1	M0002	Gearbox	1
2	K0428	HHCS 5/16"-24 x 1" GR8	1
3	K0043	Lock Washer 5/16"	1
4	N0002	Pillow Block Bearing 7/8"	1
5	K0035	Set Screw 5/16"-18 x 1/4" Cup Point	1
6	J0272	Woodruff Key #9	1
7	A2048	Clutch Flange Assy	1



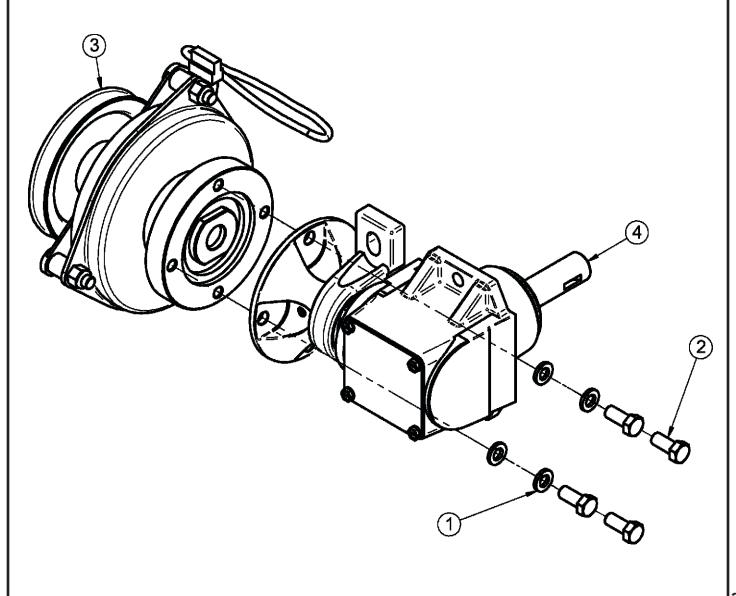
# A2059\_01 Clutch Sub-Assembly

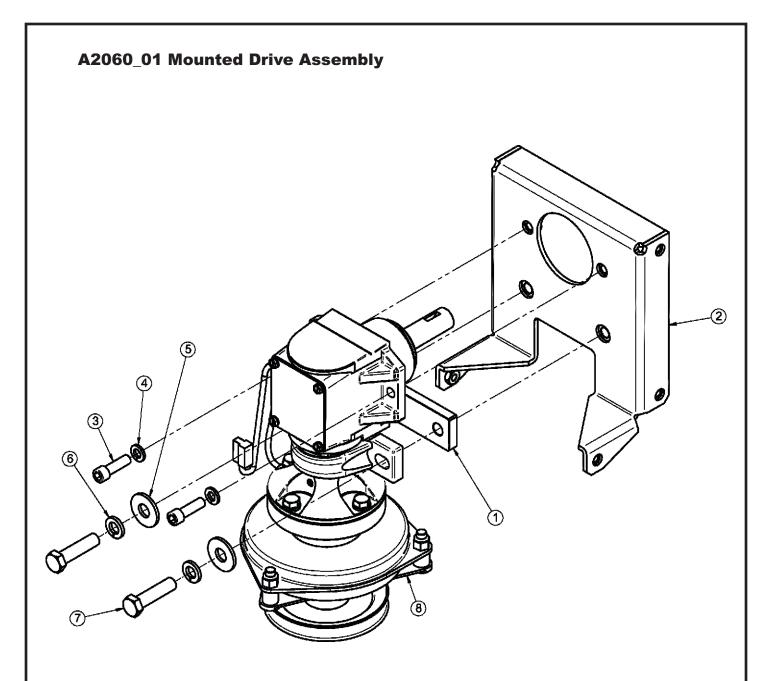
Item #	Part #	Desc.	Qty.
1	M0001	Electric Clutch (Ogura 110 Ft-Lb Clutch/Brake)	1
2	S0007	Clutch Shaft	1
3	K0278	Double Indented Washer 7/16" / 1.375 OD x .440 ID x .179 T	1
4	K0140	Lock Washer 7/16" / High-Collar Helical Spring	1
5	K0359	HHCS / 7/16"-20 x 4.00" w/ Patch	1
6	M0309	A-Section Pulley / 4.75 OD	1
7	S0221	Eng. Pulley Bushing #27	1
8	K0076	Key 1/4" x 3/4" Long	1



### A2057\_01 Drive Assembly Exploded Parts View

Item #	Part #	Desc.	Qty.
1	K0048	Lock Washer 3/8"	4
2	K0343	HHCS 3/8"-16 x 7/8" GR8	4
3	A2059_01	Clutch Sub-Assy	1
4	A2058	Gearbox Sub-Assy	1

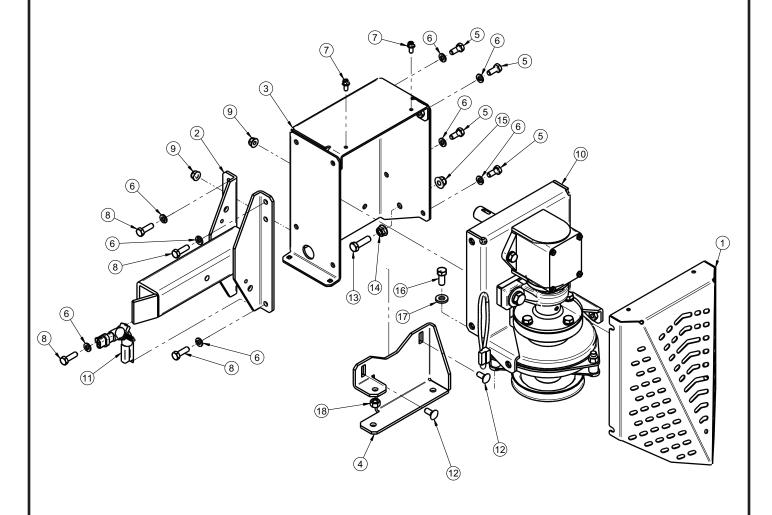




ltem#	Part#	Desc.	Qty.
1	B0940	Spacer Plate	1
2		Drive Mnt Assy	1
3	K0309	3/8"-16x1-1/4"SHCS	2
4	K0048	Lock Washer 3/8"	2
5		Flat Washer 1/2"/1.383ODx.560IDx.120T	2
6	K0056	Lock Washer 1/2"	2
7		HHCS 1/2"-13x2"	2
8	A2057_01	Drive Assy	1

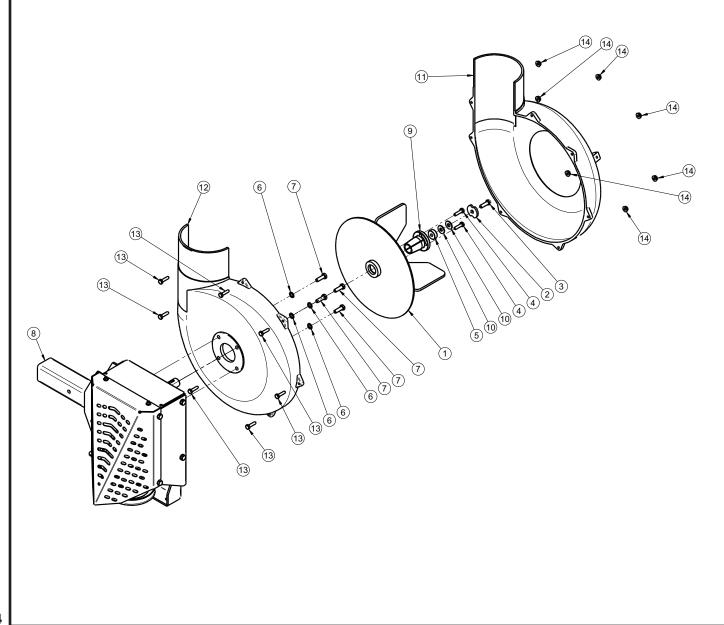
#### A2039\_01 Base Drive Assembly

Item #	Part #	Desc.	Qty.
1	B0938	Drive Guard	1
2	A2032	Drive Arm Assy	1
3	A2035_01	Housing Mnt Assy	1
4	B0942_01	Anti-Rotation Brkt	1
5	K1153	HHCS 5/16"-18 x 3/4"	4
6	K0043	Lock Washer 5/16"	8
7	K0353	HWHTCS 1/4"-20 x 1/2"	2
8	K1154	HHCS 5/16"-18 x 1"	4
9	K2516	Ny-Flange Lock Nut 5/16"-18	2
10	A2060_01	Mounted Drive Assy	1
11	P0271	Quick Connect Wire Harness	1
12	K1142	5/16"-18 x 3/4" Carraige Bolt	2
13	K0509	3/8"-16 x 1-1/4" GR8 HHCS	1
14	K1215	Flange Nut 3/8"-16	1
15	K2038	Ny-Flange Lock Nut 3/8"-16	1
16	K0343	HHCS 3/8"-16 x 1-1/8" GR8	1
17	K1477	Flat Washer / 3/8" / .406 ID x .812 OD x .125 Thk	1
18	K1476	Reverse Lock Nut / 3/8"-16 Grade C	1



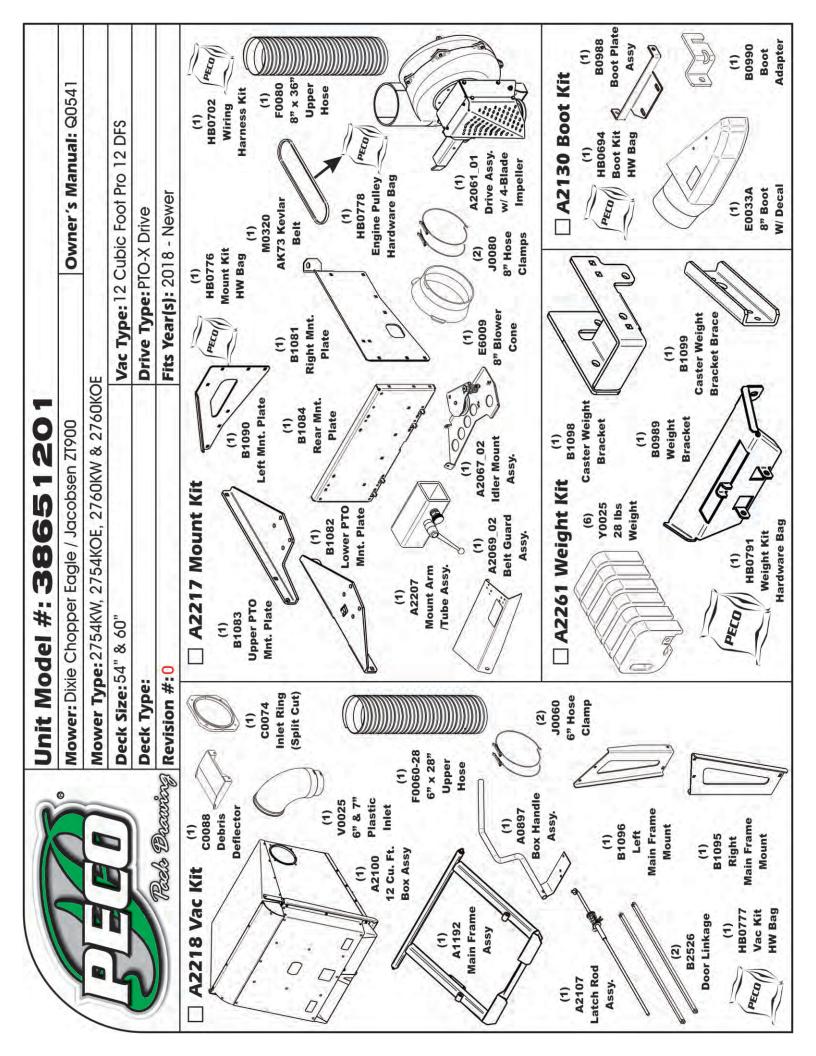
# A2061\_01 Drive Assembly / 4 Blade Impeller

Item #	Part #	Desc.	Qty.
1	A0645	4-Blade Impeller Assy	1
2	K0284	Double Indented Washer 3/8" / 1.375 OD x .380 ID x .179 T	1
3	K1465	HHCS 5/16"-24 x 1-1/2" GR8	1
4	K1225	HHCS 1/4"-20 X 1" GR8	2
5	S0159	Spacer Bushing .938 OD x .325 ID x .375 T	1
6	K0044	I/T Tooth Lock Washer 5/16"	4
7	K1154	HHCS 5/16"-18 x 1"	4
8	A2039_01	Drive Assy / Base	1
9	S0157	Taperlock Bushing 7/8"	1
10	K0042	Flat Washer 5/16" / .875 OD x .380 ID x .075 T	2
11	E4052F	Blower Hsg Front	1
12	E4052B	Blower Hsg Back	1
13	K1125	HHCS 1/4"-20 X 1" GR2	7
14	K1126	Flange Nut 1/4"-20	7



### A2100 6512 Box Assembly Exploded Parts View

Item # 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Part # B1750 B1727 B1574 C0024 C0080 C0081 A0938 V1131 A0738 B1730 B0996 C0075 V0051 B3688 C0076	Desc. Base Frame Base Frame Pivot Mount Pivot Bracket Box Bottom Box Back & Sides Box Top Frame Weldment / Box Opening 12 Box Door Frame Weldment / Door Stiffener Latch Handle Mount Bracket Latch Hook Dust Diverter	Qty. 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	B1727 B1574 C0024 C0080 C0081 A0938 V1131 A0738 B1730 B0996 C0075 V0051 B3688	Base Frame Pivot Mount Pivot Bracket Box Bottom Box Back & Sides Box Top Frame Weldment / Box Opening 12 Box Door Frame Weldment / Door Stiffener Latch Handle Mount Bracket Latch Hook Dust Diverter	1 2 1 1 1 1 1 1 1 1 1 1 1	
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	B1574 C0024 C0080 C0081 A0938 V1131 A0738 B1730 B0996 C0075 V0051 B3688	Pivot Bracket Box Bottom Box Back & Sides Box Top Frame Weldment / Box Opening 12 Box Door Frame Weldment / Door Stiffener Latch Handle Mount Bracket Latch Hook Dust Diverter	2 1 1 1 1 1 1 1 1 1	
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	C0024 C0080 C0081 A0938 V1131 A0738 B1730 B0996 C0075 V0051 B3688	Box Bottom Box Back & Sides Box Top Frame Weldment / Box Opening 12 Box Door Frame Weldment / Door Stiffener Latch Handle Mount Bracket Latch Hook Dust Diverter	1 1 1 1 1 1 1	
5 6 7 8 9 10 11 12 13 14 15 16 17 18	C0080 C0081 A0938 V1131 A0738 B1730 B0996 C0075 V0051 B3688	Box Back & Sides Box Top Frame Weldment / Box Opening 12 Box Door Frame Weldment / Door Stiffener Latch Handle Mount Bracket Latch Hook Dust Diverter	1 1 1 1 1 1	
6 7 8 9 10 11 12 13 14 15 16 17 18	C0081 A0938 V1131 A0738 B1730 B0996 C0075 V0051 B3688	Box Top Frame Weldment / Box Opening 12 Box Door Frame Weldment / Door Stiffener Latch Handle Mount Bracket Latch Hook Dust Diverter	1 1 1 1 1	
7 8 9 10 11 12 13 14 15 16 17 18	A0938 V1131 A0738 B1730 B0996 C0075 V0051 B3688	Frame Weldment / Box Opening 12 Box Door Frame Weldment / Door Stiffener Latch Handle Mount Bracket Latch Hook Dust Diverter	1 1 1 1	
8 9 10 11 12 13 14 15 16 17 18	V1131 A0738 B1730 B0996 C0075 V0051 B3688	12 Box Door Frame Weldment / Door Stiffener Latch Handle Mount Bracket Latch Hook Dust Diverter	1 1 1	
9 10 11 12 13 14 15 16 17 18	A0738 B1730 B0996 C0075 V0051 B3688	Frame Weldment / Door Stiffener Latch Handle Mount Bracket Latch Hook Dust Diverter	1 1 1	
10 11 12 13 14 15 16 17 18	B1730 B0996 C0075 V0051 B3688	Latch Handle Mount Bracket Latch Hook Dust Diverter	1	
11 12 13 14 15 16 17 18	B0996 C0075 V0051 B3688	Latch Hook Dust Diverter	1	
12 13 14 15 16 17 18	C0075 V0051 B3688	Dust Diverter		
13 14 15 16 17 18	V0051 B3688			
14 15 16 17 18	B3688		1	
15 16 17 18		Dust Flap	1	
15 16 17 18		Upper Door Member	1	
16 17 18		Left Dust Diverter Brace	1	
17 18	C0077	Right Dust Diverter Brace	1	
18	C0079	Right Outer Dust Flap Brace	1	
	C0078	Left Outer Dust Flap Brace	1	
19	B0991	Dust Diverter Guard Bracket	1	
20	A2104	Latch Mount Plate Assy.	1	
21	V0052A	Dust Seal / Top Sides	1	
22	V0052A	Dust Seal / Long Door Sides	2	$\frown$
23	B1006	Dust Flap Stiffener	1	(6)
23			2	
	B1007	Screen Clamp Strip / Side	1	(24)
25	C0087	Screen Support		
26	V0052C	Dust Seal / Short Door Sides	2	
27 28	B1008 B8113	Screen Clamp Strip / Rear Door Screen / Steel Wire Mesh	1	
	(13)			
· ·	2		9	



# 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.

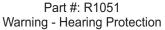
Part #: R1054 Important - Hose Wear





Part #: R1057 - (2) Red Reflectors







Part #: 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.

### **4-2 Lubrication**

#### Gearbox:

**NOTE:** The gearbox is filled with 6.0 oz. of Mobilube HD Plus 80W-90 oil and permanently sealed. There is no need for scheduled lubrication. The oil level should only be checked if a leak is observed or if a change in gearbox noise is noticed.

Operators are recommended to check for leaks weekly. If a leak is observed, both the gasket and the seals are recommended to be replaced.

Replace the oil using 5.5 oz. of the recommended Mobilube HD Plus 80W-90 oil. Be sure to <u>not</u> overfill.

Blower Assembly:

- **NOTE:** The following is for older PTO models that contain a greaseable zirc 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**

#### **5-1 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.
	Arden, North Carolina 28704
	0-438-5823   828-684-1234
Fa	ax: 828-684-0858
Email:	peco@lawnvac.com
14/ . 1 14	e: www.lawnvac.com

# **TORQUE SPECIFICATIONS**

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

Bolt Hea	d Markings	WRENCH SIZE (IN.) "A"	BOLT DIAMETER (IN.) "B" AND THREAD SIZE	SAE GRADE 2	SAE GRADE 5	SAE GRADE 8
		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)
	SAE Grade 2 (No Dashes)	1/2	5/16 - 24 UNF	13 (17)	19 (26)	27 (37)
	(NO Dashes)	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
A		7/8	9/16 - 12 UNC	70 (95)	109 (148)	153 (207
	SAE Grade 5	7/8	9/16 - 18 UNF	79 (107)	122 (165)	172 (233
	(3 Dashes)	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
	Diameter B	1-1/8	3/4 - 16 UNF	192 (260)	297 (402)	420 (569
	Boller	1-5/16	7/8 - 9 UNC	166 (225)	430 (583)	606 (821
	Diani	1-5/16	7/8 - 14 UNF	184 (249)	474 (642)	668 (905
↓ /		1-1/2	1 - 8 ŲNC	250 (339)	644 (873)	909 (123
	SAE Grade 8 (6 Dashes)	1-1/2	1 - 12 UNF	274 (371)	705 (955)	995 (134
nch "A"		1-1/2	1 - 14 UNF	280 (379)	721 (977)	1019 (138
		1-11/16	1-1/8 - 7 UNC	354 (480)	795 (1077)	1288(174
Т		1-11/16	1-1/8 - 12 UNF	397 (538)	890 (1206)	1444 (195
		1-7/8	1-1/4 - 7 UNC	500 (678)	1120 (1518)	1817 (246
		1-7/8	1-1/4 - 12 UNF	553 (749)	1241 (1682)	2013 (272
		2-1/16	1-3/8 - 6 UNC	655 (887)	1470 (1992)	2382 (322
		2-1/16	1-3/8 - 12 UNF	746 (1011)	1672 (2266)	2712 (367
		2-1/4	1-1/2 - 6 UNC	870 (1179)	1950 (2642)	3161 (428
		2-1/4	1-1/2 - 12 UNF	979 (1327)	2194 (2973)	3557 (482

Wrench Size "A" Numbers appearing on bolt heads indicate ASTM class.

**AMERICAN** 

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

Proper 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

2017 (v1.0)

# **Collection System Performance**

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



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