

# PRO 12 ENGINE DRIVEN - GRASS COLLECTION SYSTEM Model# 35621228



### **EXMARK NEXT GENERATION MOWERS**

Deck Size: 48", 52", 60" & 72" Mower Year: 2009-2023

### OPERATOR'S MANUAL

**ASSEMBLY** • OPERATION • MAINTENANCE

MANUAL PART#: Q0384 Rev. 3 - Jan 2024

### **GRASS COLLECTION SYSTEM**

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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.
- 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.



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

White letters on RED



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

Black letters on **ORANGE** 

It may also be used to alert against unsafe practices.



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.

Black letters on YELLOW

### 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

- 1. 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**

- 1. 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: https://www.briggsandstratton.com/na/en\_us/support/warranty.html
- 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, cutting 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 affiliated 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 <a href="https://www.lawnvac.com">www.lawnvac.com</a> or contact our Sales Department at New PECO, Inc. 800-438-5823 or email <a href="mailto:Sales@lawnvac.com">Sales@lawnvac.com</a>.

### **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. This manual is provided to give you the necessary instructions to properly mount and operate 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 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 good for picking up leaves and twigs in pre-season and post-season cleanup.

The engine/blower/blade assembly, is mounted on the right side of the unit. The blower draws grass clippings from the discharge area of the cutter deck up to the aluminum container mounted over the rear portion of the frame. The operator can engage the engine/blower/blade assembly by starting the engine.

Once the container is full of clippings, the operator can easily push and raise the lift handle, releasing the container's rear door and the container will pivot towards the ground.

### **Section II - INSTALLATION FOR USE**

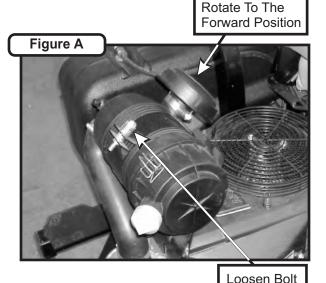
### **Preparation Of Mower**

Carefully dismantle wooden shipping crate from around the components. Cut retaining straps and separate the parts. The collection system will have various parts located inside. Remove and sort all parts for easy identification.

**Note:** Before each step of assembly it will help to study the Exploded Drawings on pages 12 thru 14.

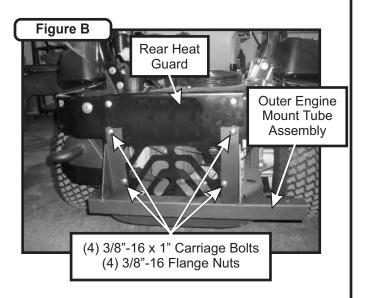
### **Rotating The Donaldson Air Cleaner**

**Note**: If equipped with a Donaldson air cleaner, unit must be rotated to make clearance for top main frame assembly. To rotate Donaldson air cleaner, loosen bolt on air cleaner bracket, rotate air cleaner forward as needed for clearance as shown in Figure A and tighten.



### **Outer Engine Mount Tube Installation**

Remove the 4 existing bolts from the rear Exmark heat guard as shown in Figure B. Align the holes of the outer engine mount tube assembly P#(A0600) to the holes on the heat guard and fasten by using (4) 3/8"-16 x 1" Carriage Bolts P#(K1182) and (4) 3/8"-16 Nyloc Nuts P#(K1216).

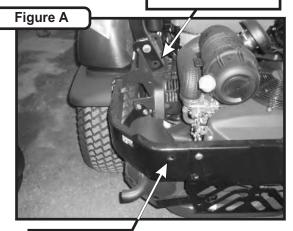


### **Lower Main Frame Leg Installation**

Looking from the rear of mower, locate the ROPS mounting bolts and remove the lower hex bolt and washer from each side of the ROPS. On the mowers rear bumper, locate the slotted hole on each side.

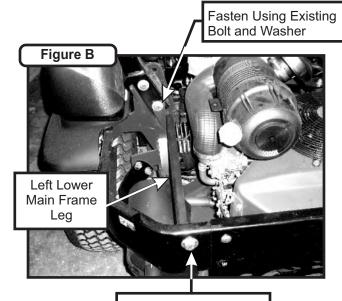
See Figure A.

R.O.P.S. with Lower Hex Bolt Removed

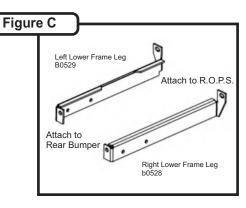


Slotted Hole in Rear Bumper

From the rear of the mower, align each lower main frame leg, P#(B0528 Right) and P#(B0529 Left), to the lower ROPS mounting holes and to the rear bumper slot holes. Fasten to the lower ROPS mounting hole with existing hex bolt and washer removed in section 2-3a. Fasten to the rear bumper slotted hole by using (1) 1/2"-13 x 1" HHCS P#(K1231), (1) 1/2" Flat Washers P#(K0055) and (1) 1/2"-13 Nyloc Nut P#(K1247) per side. Refer to Figure B and Figure C.



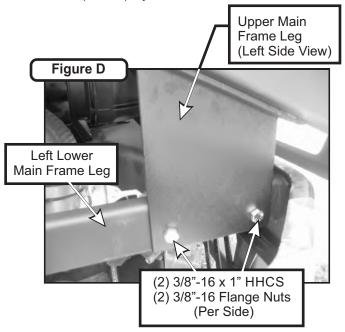
(1) 1/2" x 13 x 1" HHCS (1) 1/2" Flat Washer (Per Frame Leg)

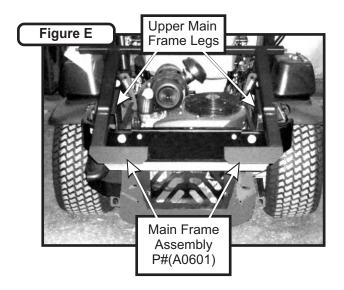


### **Main Frame Assembly Installation**

 $\underline{\text{Note:}}\,$  It is recommended that someone assist during this step.

Position the main frame assembly P#(A0601) over each of the lower frame legs previously installed and align holes as shown in Figure D and Figure E. Fasten each side by using (2) 3/8"-16 x 1 HHCS P#(K1191) and (2) 3/8"-16 P#(K1216) Nyloc Nuts.





### **Lift Handle Installation**

The various parts of the Handle Assembly P#(A0273) must be attached to the container frame. PAGE 12 shows the orientation and location of the components. Slide the Lift Handle into the slot in the Handle Mount Bracket P#(B1730) on the grass container. It may be necessary to remove the Handle Grip P#(J0522) to allow the handle to fit through the slot.

Before attaching the Handle, hook one end of the Spring P#(J0176) into the hole on the underside of the Handle. Hook the other end of the Spring into the open hole in the Handle Mount Bracket.

Fasten the handle to the grass container frame by using (1) 3/8"-16 x 2" HHCS P#(K1208) and (2) 3/8"-16 Flange Nuts P#(K1215). At this point the Handle can pivot back and forth in the slot of the Handle Mount Bracket.

With the Handle in place, fasten the Ball Joint P#(K1442) to the end of the Latch Rod P#(A0260) (PAGE 8). Tighten to approximately half way down the threads of the Latch Rod.

Slide the Ball Joint into the hole on the Latch Hook P#(B1529). Use (1) 5/16"-24 Hex Nut P#(K1444) and (1) 5/16" Lock Washer P#(K0043) to fasten the Ball Joint to the Latch Hook.

Attach the opposite end of the Latch Rod into the Handle. Fasten the Rod to the Handle by using (1) 3/32" x 3/4" Cotter Pin P#(K0094).

Adjust the rod to allow the Hook to close the Box Door completely.

Refer to page 8 for Exploded Parts Drawings and photographs of the complete assembly.

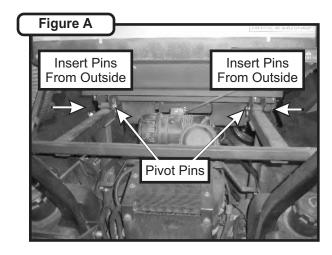
### Aluminum Grass Container Installation

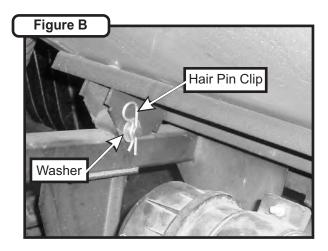
**NOTE:** It is recommended that (3) people assist in mounting the container.

With three people available, two can lower the container 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. Refer to Figures A and 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 (Page 9). The door of the container should open and the box should pivot clockwise towards the ground.



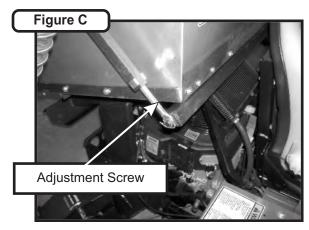


### **Dump Mechanism Adjustment**

The Linkage may be adjusted in two places, at the Adjusting Screw P#(K1435) and the Latch Assembly items (See page 10 for visual clarification).

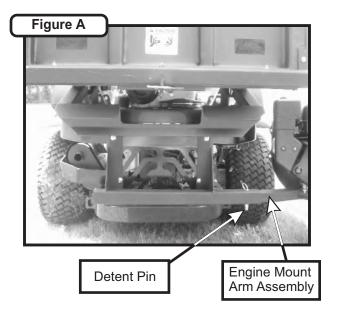
To change the door closure tightness, screw the Adjusting Screw (Figure C) in or out.

To adjust the Latch, change the length of the Latch Rod by screwing the Latch Adjusting Ball joint in or out. The Latch Hook Pivot should be in the middle of the slot in the Latch Hook Pivot Plate. Slide the pivot back or forth and then re-tighten.



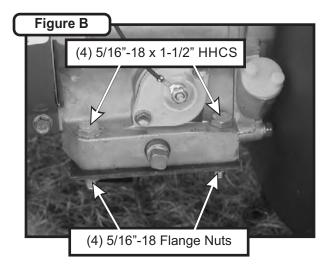
### ngine Mount Arm Assembly Installation

Slide the Engine Mount Arm Assembly P#(A0318) (Figure A) into the Outer Engine Mount Tube P#(A0600) until the hole in the Engine Mount Arm Assembly aligns with the Outer Engine Mount Tube hole. Secure the Engine Mount Arm Assembly using (1) Detent Pin P#(J0248).



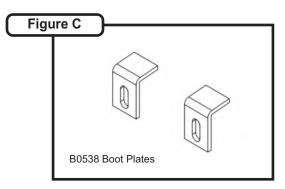
### Engine/Blower/Blade Assembly Installation

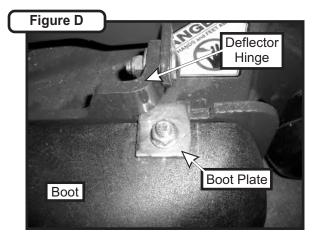
Place the Engine/Blower/Blade Assembly onto the Motor Mount Arm Assembly (Figure B). Secure the Engine/Blower/Blade Assembly to the Engine Mount Arm Assembly by using (4) 5/16"-18 x 1-1/2" Hex Bolts P#(K1157) and (4) 5/16"-18 Nyloc Nuts P#(K1180).

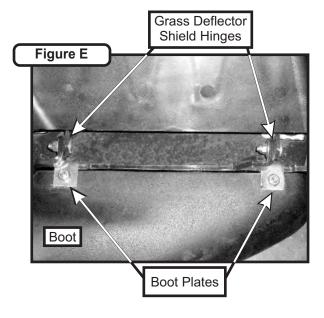


### **Boot To Mower Deck Installation**

To mount the Boot Plates P#(B0538) to the Boot P#(E1039) use (2) 3/8"-16 x 1" Carriage Bolts P#(K1182) and (2) 3/8"-16 Nyloc Nuts P#(K1216). Make certain that when bolting the Boot and Boot Plate together, that the head of the bolt is placed from the inside of the Boot. This will prevent grass from collecting on the bolts. To install the Boot Plates and Boot to the tractor, lift the Boot Plate Assembly to a 45 degree angle and slide the Boot Plates under the deflector shield hinges on each side. Refer to Figures C, D & E.





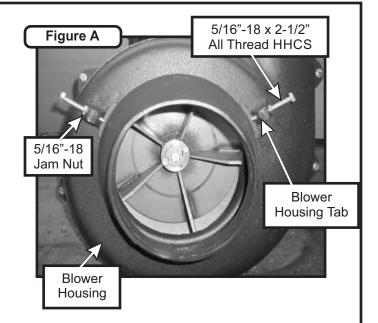


### **Blower Cone Installation**

Thread (1) 5/16"-18 Jam Nut P#(K0120) onto each end of (2) 5/16"- $18 \times 2$ -1/2" HHCS P#(K0125). Now partially thread the bolts into each of the two tabs located on the Blower Housing. Place the Blower Cone so the two tabs line up with the bolts then tighten completely. See Figure A.

### **WARNING**

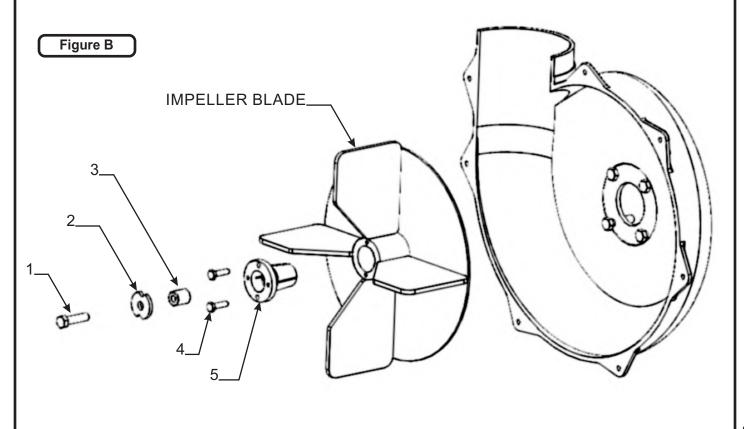
To Prevent Serious Injury-Proper Installation Of the Blower Cone Is Mandatory. Please Check That The Blower Cone Is Properly Secure After Installation.



### Impeller Blade Removal/Replacement

<u>To Remove:</u> First remove the center Bolt (#1), Washer (#2) and Spacer (#3) from the Taper-Lock Bushing (#5). See Figure B. Next remove the (2) 1/4"-20 Bolts (#4) and place them into the threaded holes of the Taper-Lock Bushing (next to the holes they were removed from). 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, hit the base of the Impeller, between each vein, with a hammer, then try again.

<u>To Replace</u>: Place Impeller Blade over the Engine Shaft. Slide the Taper-Lock Bushing 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 HHCS Grade 8 Bolts, (1) Spacer Washer and (1) HHCS Bolt w/ Washer. Torque to the proper specifications in the torque chart on the back of this manual. Next, rotate the Impeller Blade to insure that the Blade is clear of contact on all sides of the Blower Housing

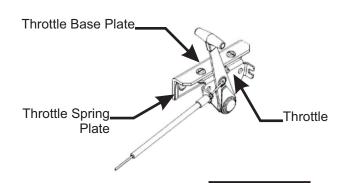


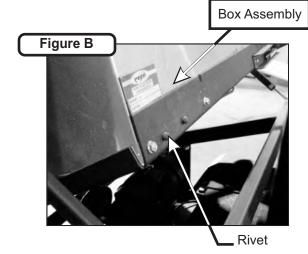
### **Throttle Cable Installation**

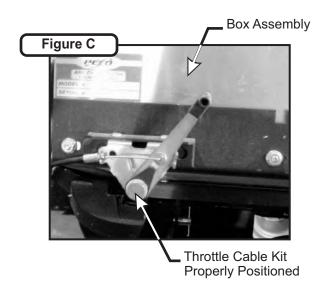
To install the Throttle Cable Kit P#(A0060) to the Box Assembly, align the large end of the slot in the Throttle Base Plate (Figure A) with the rivets located on the front of the Box Assembly Frame (Figure B). Place the Throttle Base Plate over the rivets, Slide the Throttle Cable Kit to the right, moving the smaller end of the slot over the rivets. When positioned correctly, the Throttle Spring Plate will snap into place (Figure C).

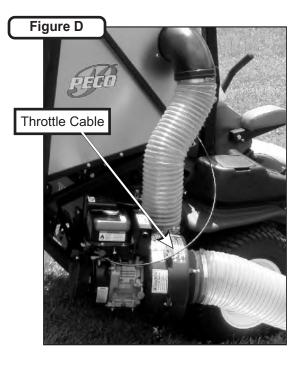
To remove the Throttle Cable Kit, lift the Throttle Spring Plate and slide the Throttle Kit to the left.









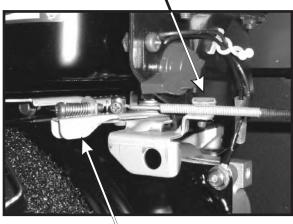


To fasten the Throttle Cable end to the Engine, place the Throttle Control Lever into the "STOP" position. Rotate the Engine Throttle lever to the "STOP" position. Thread the Wire End of the Throttle Cable into the Engine Throttle Lever eyelet and tighten the screw. Fasten the Throttle Cable Sleeve to the clamp on the Engine Throttle. Rotate the Throttle Control Lever into the "FAST" position to check for proper installation. Refer to Figure E.

**Note:** Cable sleeve may need to be cut depending on the engine type. Once Throttle Cable is attached, pull the box handle to dump the box and be sure the cable does not alter the movement of the box.

Figure E

Throttle Cable Clamp



**Engine Throttle Lever** 

### **Length Of Hose Adjustment**

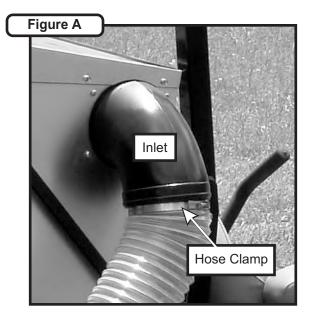
The hoses in the following steps must be cut to fit your machine. Do not cut the hoses until you have tried to fit them on your machine. Remember that the hoses need to be long enough to allow for the opening and closing of the collection system as well as allowing ample clamping surface between each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

### **Upper Hose Installation**

Slide (1) Upper Hose Clamp P#(J0060) onto both ends of the 6" Upper Hose. Then slide one end of the 6" Upper Hose onto the Inlet. Make sure there is about a two-inch overlap between the Hose end and the container Inlet.

Proceed to slide the opposite end of the 6" Upper Hose onto the outlet of the Blower Assembly and tighten the Hose Clamp. Refer to Figures A and B. Make sure both ends of the Upper Hose are clearly attached to the Inlet and the Blower Assembly Outlet.

Tighten the Hose Clamps.

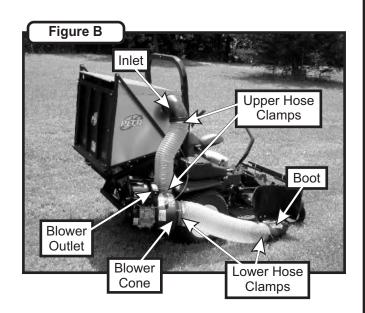


### **Lower Hose Installation**

Slide a Lower Hose Clamp P#(J0080) onto both ends of the 8" Lower Hose. Slide one end of the Lower Hose onto the Blower Cone, with 2" of the Lower Hose overlapping the Blower Cone, and tighten the Hose Clamp.

Slide the other end of the Lower Hose over the Boot, with 2" of the hose overlapping the Boot, and tighten the Hose Clamp.

Refer to Figure B.



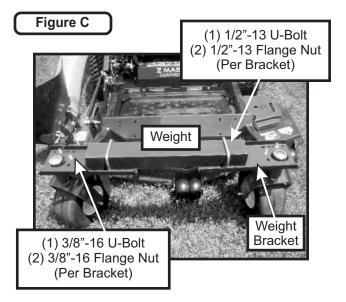
### **Front Weight Assembly**

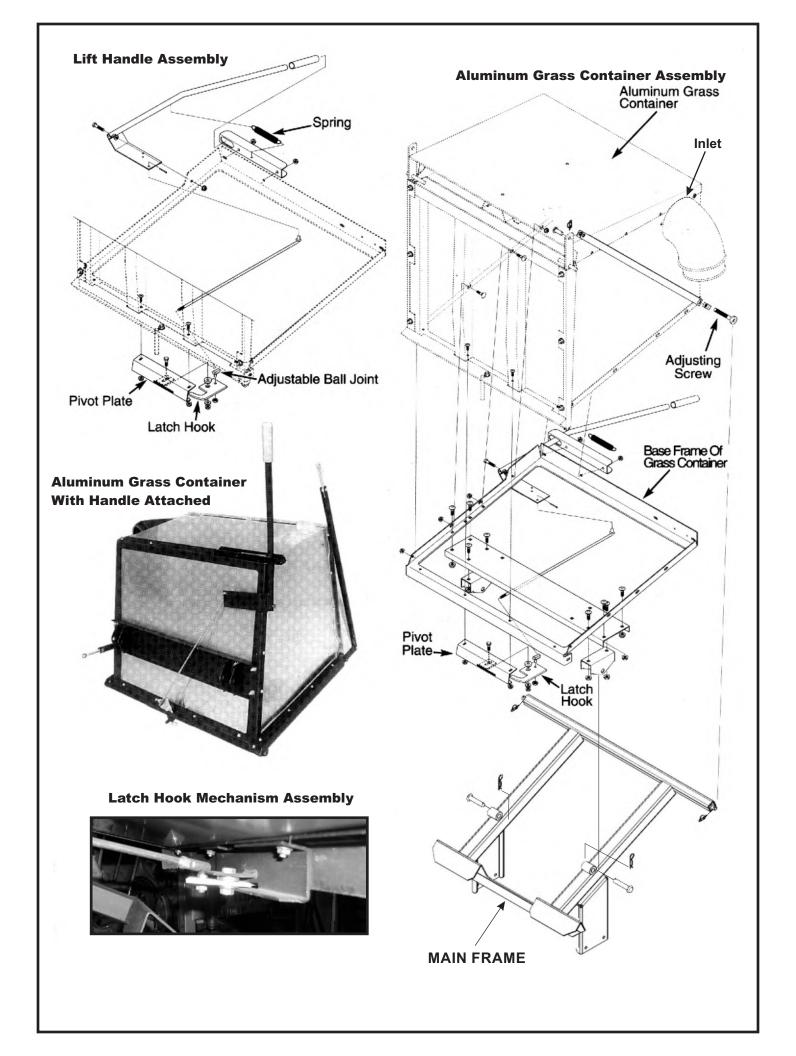
Place (1) Weight Bracket P#(B0026) over each front caster of your tractor. Fasten each Weight Bracket to the front caster loosely, by using (1) 3/8"-16 x 4" U-bolt P#(K1419) and (2) 3/8"-16 Nyloc Nuts P#(K1216) per Bracket.

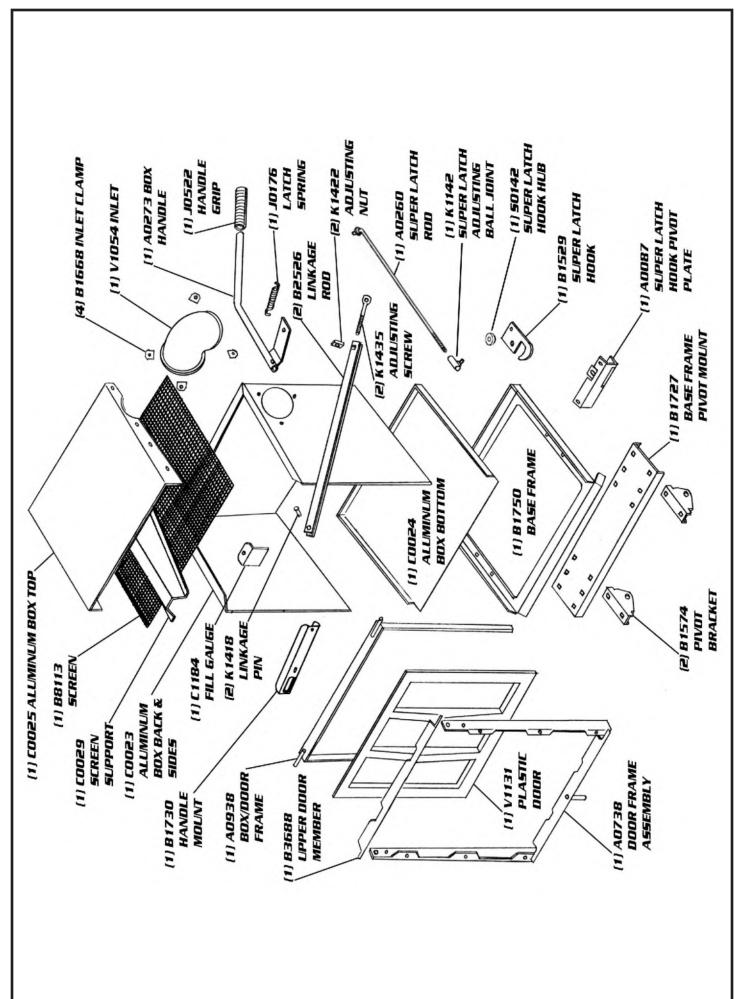
When installing the weight you should have another person help position the weight.

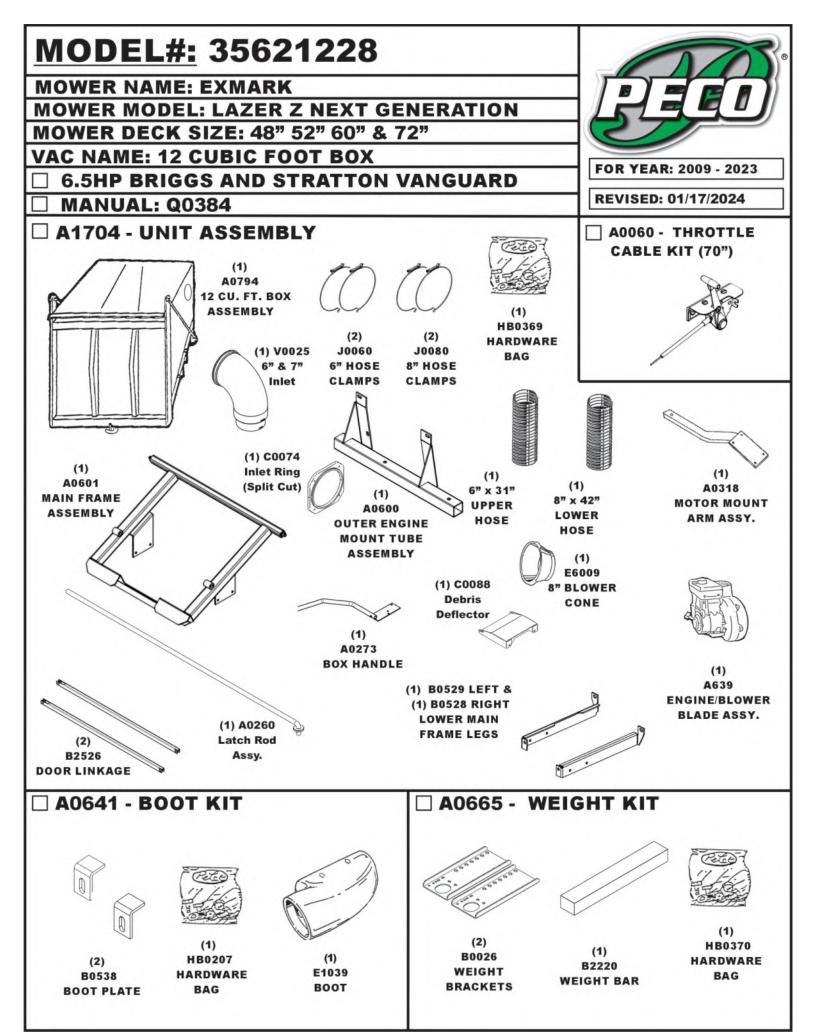
Lift the Weight and place it on top of the Weight Brackets. Fasten the Weight to the Weight Brackets by using (1) 1/2"-13 x 4-1/4" U-bolt P#(K0331) and (2) 1/2"-13 Nyloc Nuts P#(K1247) per Bracket.

Once the Weight is secure tighten all Nuts. Refer to Figure C.









### **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



A DANGER NEVER USE HANDS TO CLEAR DEBRIS WITH BLOWER RUNNING!

PELIGRO NUNCA USE MANOS
PARA LINPIAR BASURA CON LA
HOJA EN MARCHA!

Part #: R2007 Danger - Never Use Hands

FINGER ROTATING BLADES!
FINGERS, HANDS, & BODY PARTS
CAN BE SEVERED!

PELIGRO HOJA ROTANTE!
DEDOS, MANOS Y PARTES DEL

**CUERPO PUEDAN SER CORTADOS!** 



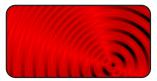
Part #: R2008 Danger - Rotating Blades

#### **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.

50031305



Part #: R1057 - (2) Red Reflectors



- TURN OFF BLOWER AND MOWER ENGINE BEFORE DISMOUNTING OR REMOVING AND CLEANING SCREENS, HOSES, CONE OR DISCHARGE CHUTES.
- TURN OFF BLOWER BEFORE DUMPING DEBRIS.
- KEEP HANDS AND BODY CLEAR OF MOVING PARTS WHEN DUMPING CONTAINER.
- \*USE CAUTION WHEN TILTING CONTAINER BACK. RELATCH HANDLE.
- \*USE CAUTION IN TURNING AND BACKING MOWER

Part #: R1069 Warning - Turn Off Blower

Part #: R1054 Important - Hose Wear



Part # R0024 Danger - Keep Hands Clear



Part #: R1051 Warning - Hearing Protection



Part # R0025 Danger - Rotating Blades

### 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 & Tips On Mowing**

- A. Perform BEFORE EACH USE the maintenance list referenced in Section IV.
- B. Start the mower.
- B. Start the EDrive Assembly.
- C. With the mower turned on, engage the mower deck.
- D. 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 EDrive 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.

### **Disengagement Of The EDrive Assy**

A. To disengage the EDrive assembly, move the Rocker Switch to the off position.

**WARNING:** DO NOT TOUCH the EDrive Assembly until after the tractor is turned off.

### **Unloading The Collection System**

**NOTE:** The collection system blower will have an audible change in tone when the collection system is full.

- A. Stop the forward movement of the mower, engage the parking brake.
- B. Disengage the mower deck.
- C. Disengage the EDrive Assembly
- D. 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.
- E. To remove the bags from the frame, slide bags out and turn bags over to deposit clippings.
- F. 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 check and clean the hood screen as needed.

### SECTION IV MAINTENANCE

#### **Maintenance Checklist**

#### Before each use:

- Check blades and spindles to be sure that no foreign objects, such as wire or steel strapping bands, are wrapped around them.
- 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.

- 3. Make sure all shields are in place and in good condition. Repair or replace any missing or damaged shields.
- 4. Listen for abnormal sounds, which might indicate loose parts, damaged bearings, or other damage. Correct any deficiency before continuing operation.
- 5. 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 collection unit is subject to deterioration and wear. 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.

### **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 Model Number:			
Unit Engine Size:			
Unit Serial Number:			
Date of purchase://			
Dealer/Distributor Name:			
Address:	State:	Zip:	
Phone Number:		-	

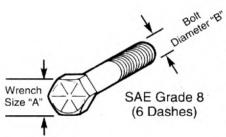
### **TORQUE SPECIFICATIONS**

### **AMERICAN**

**Bolt Head Markings** 

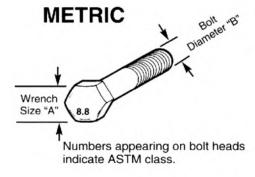






Proper toque for American fasteners used on Peco equipment. Recommended Torque in Foot Pounds (Newton Meters).\*

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)
1/2	5/16 - 24 UNF	13 (17)	19 (26)	27 (37)
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)
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
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(1745
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



\*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)

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## Troubleshooting 20 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	Clean the collection system		
	<ul><li>system</li><li>Ground speed is too fast</li></ul>	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		



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