

ENGINE DRIVEN - DEBRIS COLLECTION SYSTEM Model# TL-10

Truck Loader Briggs & Stratton 10HP Vanguard

OPERATOR'S MANUAL

ASSEMBLY • OPERATION • MAINTENANCE

MANUAL PART#: Q0504

Rev 1 - July 2019

GRASS COLLECTION SYSTEM

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.
- Keep your eyes and mind on your machine while mowing or operating your attachment. Don't let others distract 5. 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.
- Mow across the face of slopes (not more than 10 degrees); never up and down the face. 9.
- **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.

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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

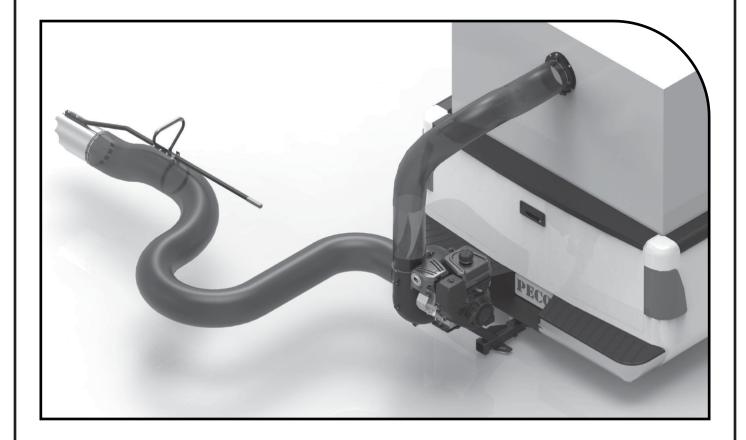
Introduction

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 common debris you may find on your lawn. The manuals are provided to give you the necessary instructions to properly mount, operate and maintain the collection system. 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 debris collection system is designed for picking up leaves in pre-season and post-season clean-up. The blower draws debris from the nozzle of the collection system back to your container. The engine/blower/blade assembly is mounted on to the rear end of the truck. The operator can engage the engine/blower/blade assembly by starting the engine.

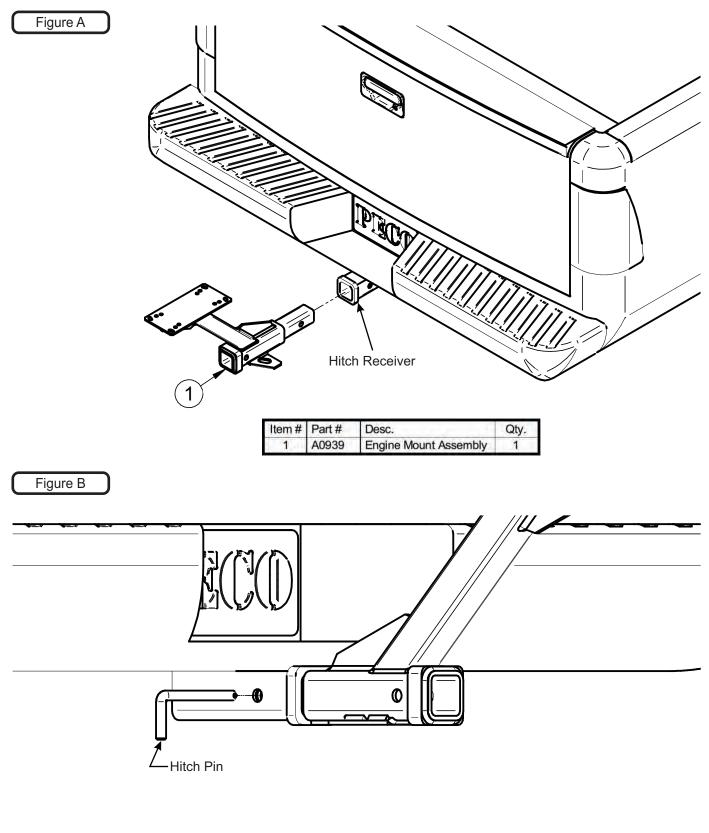


Engine Mount Assembly Installation

To install the Engine Mount Assembly (Item #1). Insert the hitch of the Engine Mount Assembly into the hitch receiver of your truck. Refer to Figure A.

Secure the Engine Mount Assembly by aligning the mounting holes of the Engine Mount Assembly to those of the hitch receiver. Use (1) hitch and (1) hitch pin that fits your truck to secure the Engine Mount Assembly. Refer to Figure B.

Note: Hitch and Hitch Pin is not included.

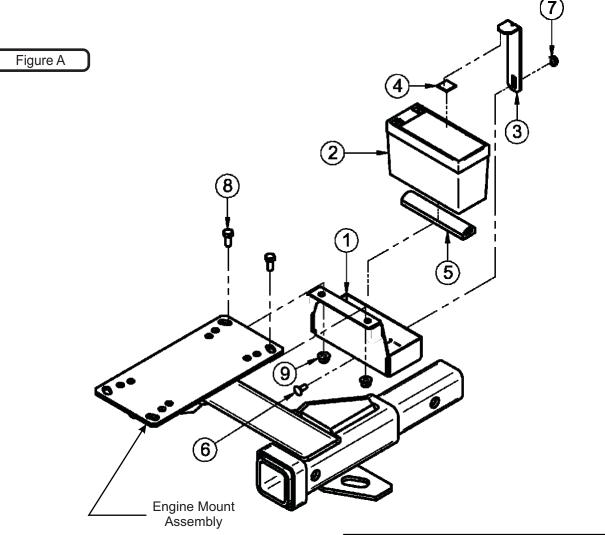


Battery & Battery Box Installation

.To install the Battery Box (Item #1), position the Battery Box over the Engine Mount Assembly as shown in Figure A. Align the two bolt holes of the Batter Box to the two slots at the end of the Engine Mount Assembly. Secure the Battery Box using (2) 5/16"-18 x 3/4" HHCS (Item #8) and (2) 5/16" Ny-Flange Lock Nut (Item #9).

Next, remove the plastic underneath the Neoprene Seal (Item #5) to reveal the adhesive and place the Neoprene Seal in the tray of the Battery Box. This will help keep the Battery (Item #2) stationary and firmly in place once it is completely installed. Place the Battery in the Battery Box over the Neoprene Seal.

Position the Battery Clamp (Item #3) in front and over the Battery. Place the Battery Clamp Dampener (Item #4), under the tab of the Battery Clamp. Align the bolt hole of the Battery Clamp to the bolt hole of the Battery Box which is located on the tab of the Box. Secure the Battery Clamp using (1) 1/4"-20 x 5/8" Carriage Bolt (Item #6) and (1) 1/4"-20 Ny-Flange Lock Nut (Item #7).

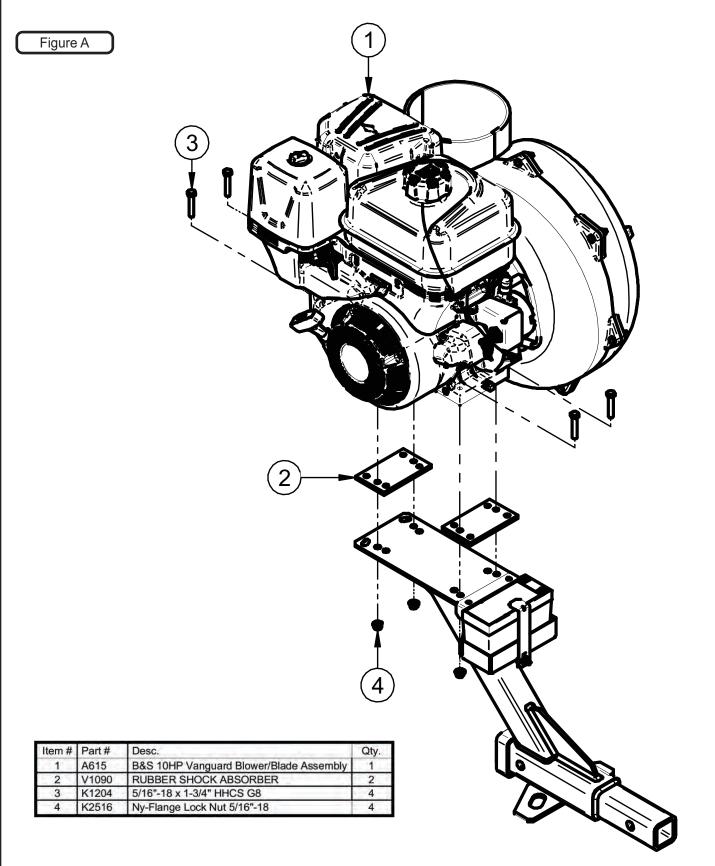


Item #	Part #	Desc.	Qty.
1	B0945	Battery Box	1
2	J1201	Power Sprayer Battery	1
3	B0946	Battery Clamp	1
4	V0052D	Dampener / Battery Clamp	1
5	V0029	NEOPRENE SEAL	1
6	K1010	1/4"-20 x 5/8" Carriage Bolt	1
7	K2014	1/4"-20 Ny-Flange Lock Nut	1
8	K1153	HHCS 5/16"-18 x 3/4"	2
9	K2516	Ny-Flange Lock Nut 5/16"-18	2

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Engine/Blower/Blade Assembly Installation

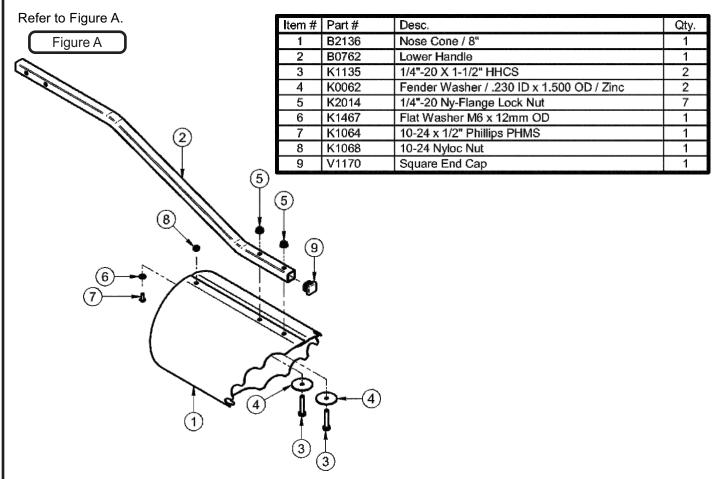
To install the Engine/Blower/Blade Assembly (Item #1), first, place the (2) Rubber Shock Absorber (Item #2) on top of the Engine Mount Arm aligning the bolt holes of the Shock Absorber to those of the Engine Mount Arm Assembly. Next, place the Engine Blower Blade Assembly (Item #1) on top of the Engine Mount Arm as shown in Figure A. Secure the Engine Blower Blade Assembly by using (4) 5/16"-18 x 1-3/4" HHCS (Item #3) and (4) 5/16"-18 Ny-Flange Lock Nuts (Item #4). Refer to Figure A.



Wand Kit Assembly & Installation

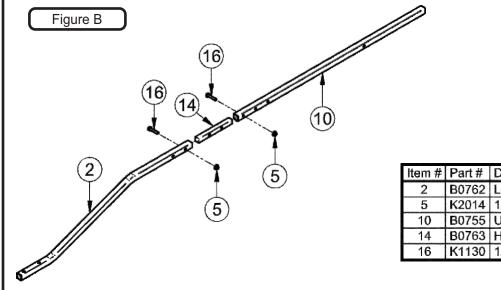
Secure the Rear End of the 8" Nose Cone (Item #1) by fastening the Top and Bottom of the Nose Cone using (1) 10-24 x 1/2" Phillips Screw (Item #7), (1) Flat Washer (Item #6) and (1) 10-24 Nyloc Nut (Item #8).

Next, align the bolt holes of the Lower Handle (Item #2) to those on Top of the Nose Cone (Item #1). Secure the Lower Handle by using (2) 1/4"-20 x 1-1/2" HHCS (Item #3), (2) Fender Washers (Item #4), and (2) 1/4" Ny-Flange Lock Nuts (Item #5). Refer to Figure A. Insert the Square End Cap (Item #6) at the end of the Lower Handle to prevent debris from entering the Lower Handle.



Assemble the Lower Handle (Item #2) to the Upper Handle (Item #10) by using the Handle Connector (Item #14). Align the bolt holes of the Handle Connector to those of the Lower Handle and the Upper Handle. Secure the Handle Connector using (2) 1/4"-20 x 1-1/4" HHCS (Item #16) and (2) 1/4" Ny-Flange Lock Nuts (Item #5). See Figure B.

Note: Some parts have been hidden from view for clarity of procedures.

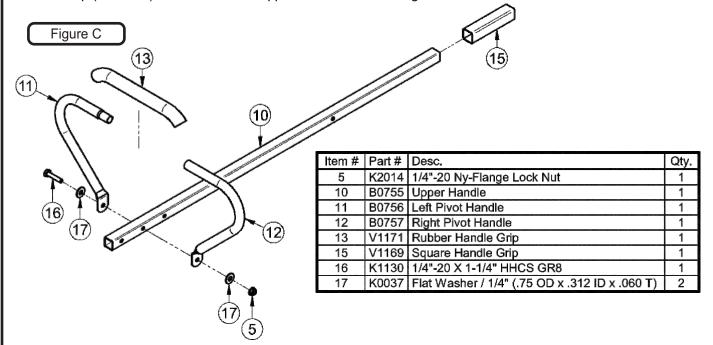


	Part #		Qty.
2	B0762	Lower Handle	1
5	K2014	1/4"-20 Ny-Flange Lock Nut	2
10	B0755	Upper Handle	1
14	B0763	Handle Connector	1
16	K1130	1/4"-20 X 1-1/4" HHCS GR8	2

Wand Kit Assembly & Installation (cont.)

Note: Some parts have been hidden from view for clarity of procedures.

Next, assemble the Pivot Handle by connecting the Left Pivot Handle (Item #11) to the Right Pivot Handle (Item #12) using the Rubber Handle Grip (Item #13). Align the bolt holes of the Pivot Handle to the second set of bolt holes on the front part of the Upper Handle (Item #10). Secure the Pivot Handle onto the Upper Handle using (1) 1/4"-20 x 1" HHCS (Item #16), (1) 1/4" Ny-Flange Lock Nut (Item #5) and (2) 1/4" Flat Washers (Item #14). Attach the Square Handle Grip (Item #15) to the end of the Upper Handle. Refer to Figure C.



Lastly, to install the Hose Strap (Item #18), align the bolt holes of the Hose Strap to the third row of bolt holes located on the front end of the Upper Handle (Item #10). Secure the Hose Strap using (1) 1/4"-20 x 1" HHCS (Item #16) and (1) 1/4" Ny-Flange Lock Nut (Item #5). Refer to Figure D.

<u>Note:</u> For ease of assembly during this last step of the Wand Kit Assembly & Installation, it is recommended to attach the Hose Strap AFTER attaching the Lower Hose to the Nose of the Wand Kit. For Hose attachment instructions refer to page 13.

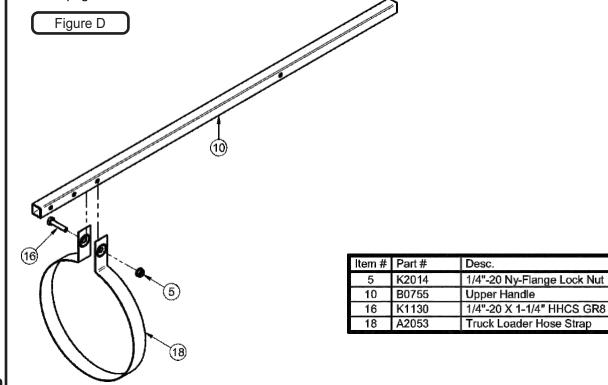
Qty.

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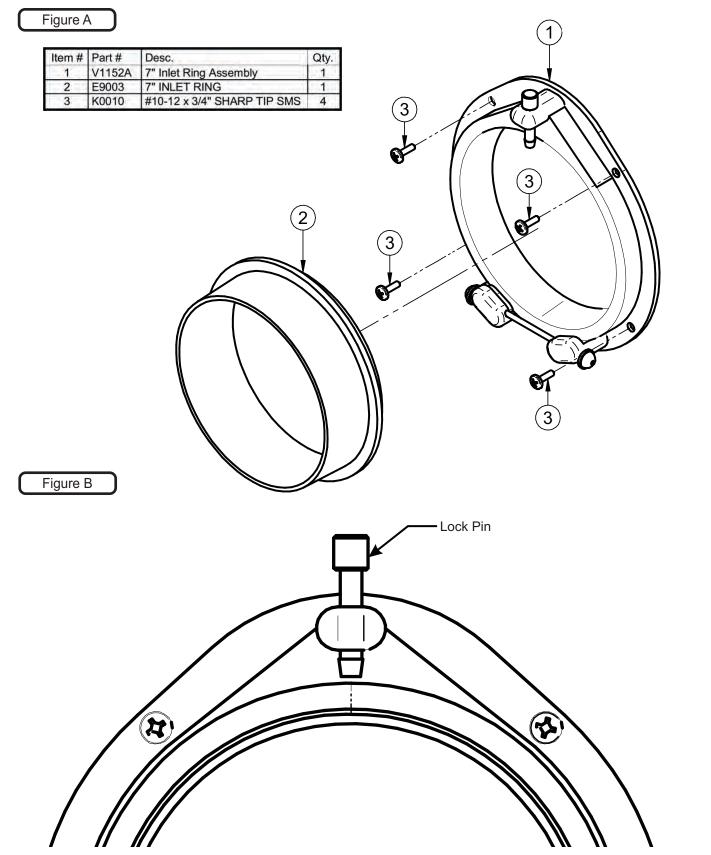


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Inlet Ring Assembly Installation

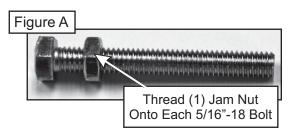
To Install the Inlet Ring Assembly (Item #1), first make sure a 7" hole has been cutout on the panel of your collection box. Align the Inlet Ring Assembly to the box and secure the Inlet Ring Assembly using (4) #10-12 x 3/4" Sheet Metal Screws (Item #3). Refer to Figure A.

Next, Adjust the Lock Pin of the Inlet Ring Assembly to insert the 7" Inlet Ring (Item #2) (Figure A) and secure the Inlet Ring to the Assembly by readjusting the Lock Pin. Refer to Figure B.

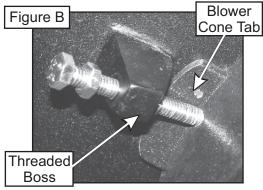


Blower Cone Installation

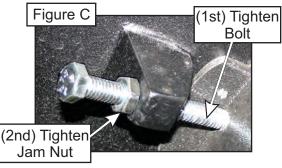
Thread (1) 5/16"-18 Jam Nut P#(K0120) onto each end of (2) 5/16"-18 x 2-1/2" HHCS P#(K0125) as shown in Figure A.



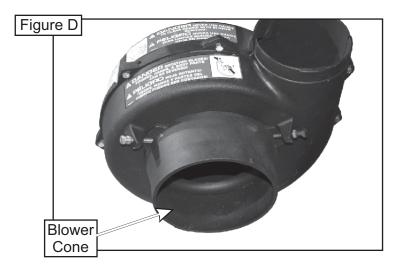
Now partially thread (1) bolt into each of the two threaded bosses located on the Blower Housing. Place 8" Blower Cone P#(E6009) so the two tabs line up with the bolts and tighten completely as shown in Figure B.



Once the (2) bolts are tight, tighten the Jam Nuts against the threaded boss as shown in Figure C.



Refer to Figure D for proper Blower Cone installation reference.



Length Of Hose Adjustment

The hoses in the following steps must be cut to fit your system. Do not cut the hoses until you have tried to fit them on to your system. 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

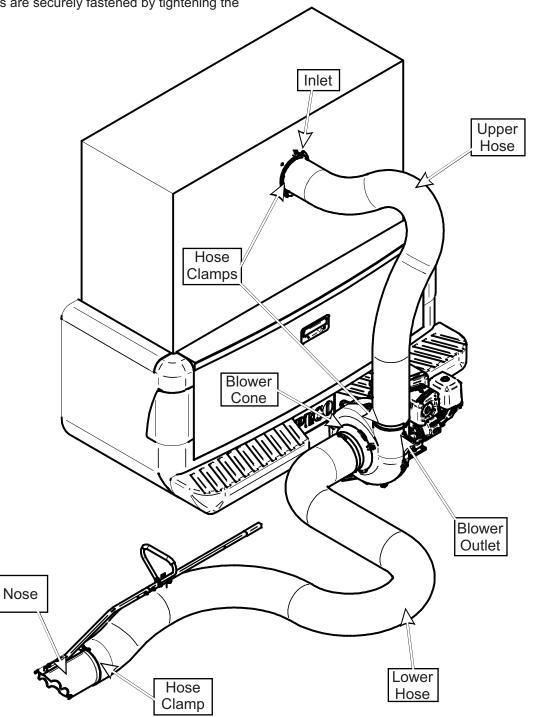
Slide a Hose Clamp P#(J0070) over one end of the 7" Upper Hose. Secure this end of the 7" Upper Hose to the Blower Outlet. See Figure below for details. Secure opposite end of the 7" Upper Hose to the Inlet. Make sure both ends are securely fastened by tightening the Hose Clamp.

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 Wand Installation

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

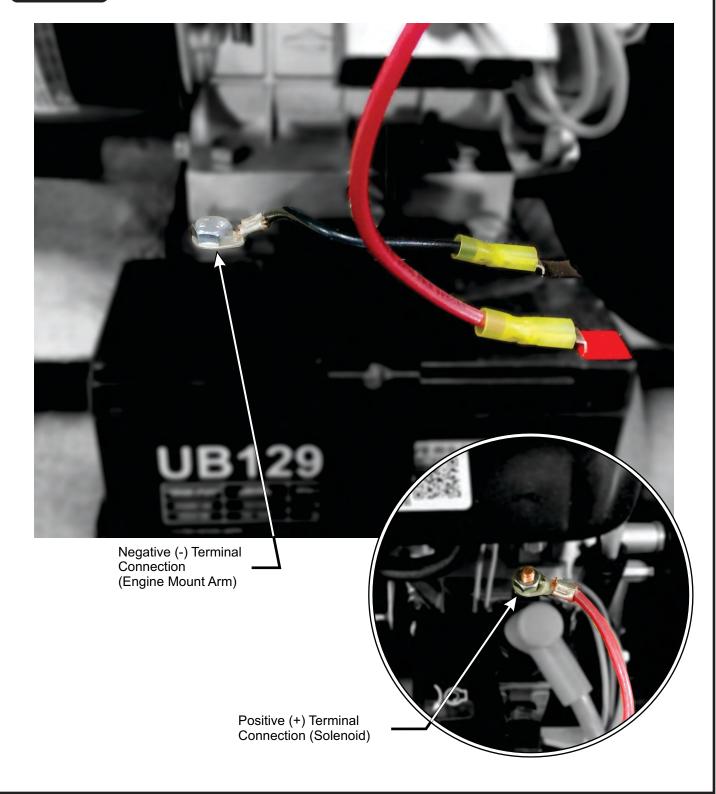


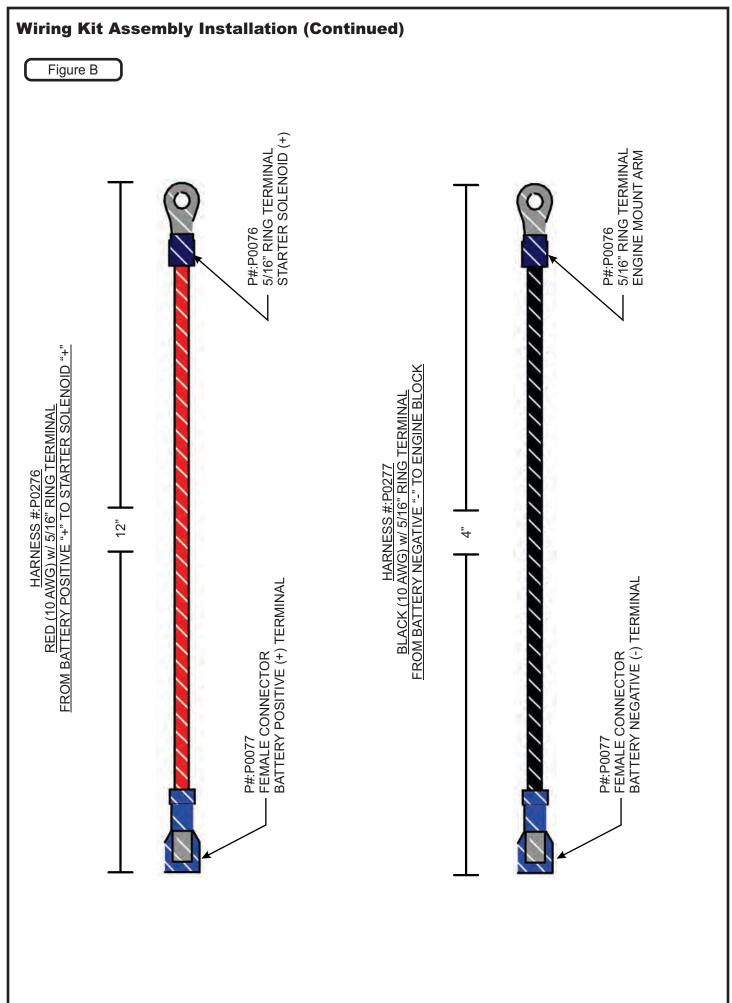
Wiring Harness Installation

To connect the Wiring Harness, connect the (P#:P0276) 10 gage Red Wire to the positive (+) terminal of the starter solenoid located on the front end of the engine. Route the Red Wire from the solenoid to the positive (+) terminal of the battery. Refer to Figure A.

Connect the (P#:P0277) 10 gage Black Wire to one of the mounting bolt holes located on the bottom of the engine or one of the bolt holes located on the Engine Mount Arm. Route the black wire from the bolt hole to the negative (-) terminal of the battery. Refer to Figure A.

Figure A

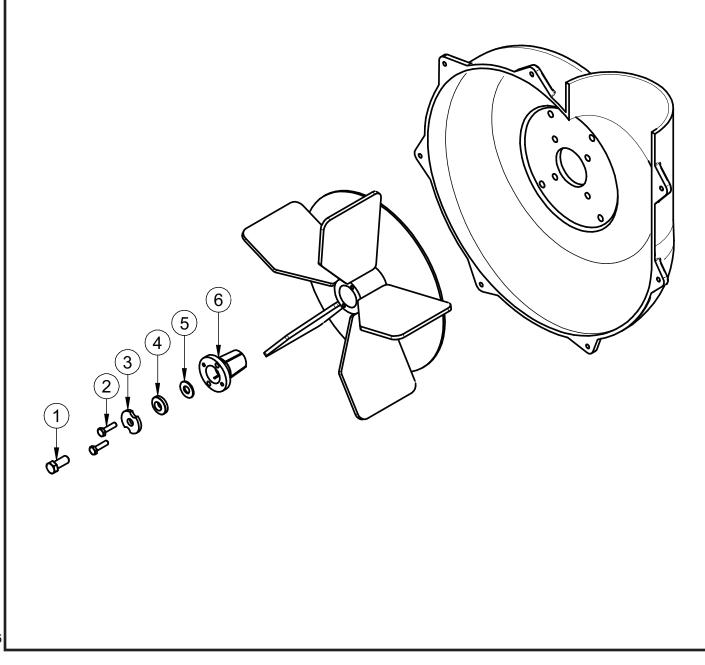


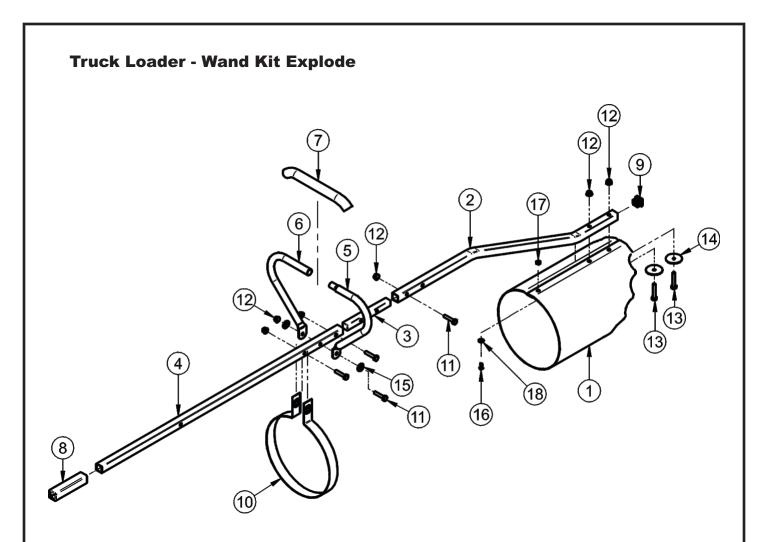


Impeller Blade Removal/Replacement

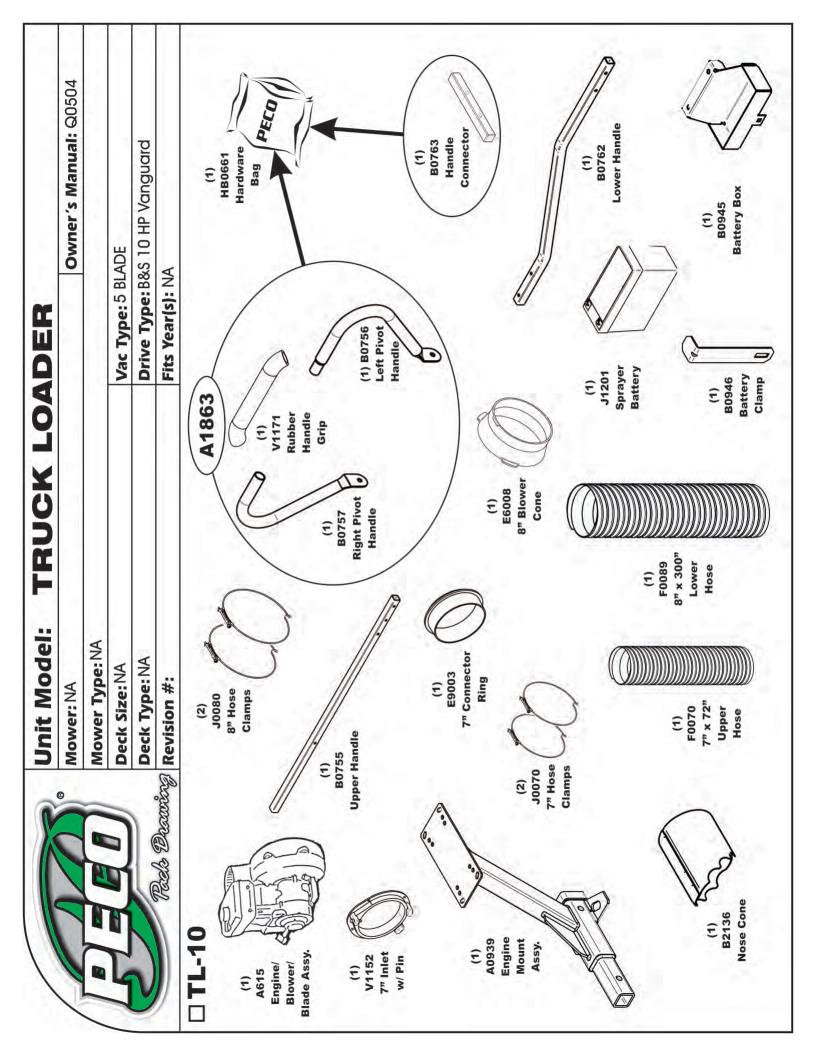
To Remove: First remove the 7/16"-20 x 1" HHCS P#(K1394) **(#1)**, 7/16" Double Indented Washer P#(K0278) **(#3)**, (1) Tapered Washer P#(K0277) **(#4)** and (1) 3/8" Flat Washer P#(K0047) **(#5)** from the Taper-Lock Bushing P#(S4302) **(#6)**. Next remove the (2) 1/4"-20 x 1" HHCS **(#2)** and place them into the threaded holes of the Taper-Lock Bushing **(#6)**. 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.

<u>To Replace</u>: Place Impeller Blade over the engine shaft. Slide the Taper-Lock Bushing (#6) 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) 3/8" Flat Washer (#5), (1) Tapered Washer (#4), (1) 7/16" Double Indented Washer (#3), and (1) 7/16"-20 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.





Item #	Part #	Desc.	Qty.
1	B2136	Nose Cone / 8"	1
2	B0762	Lower Handle	1
3	B0763	Handle Connector	1
4	B0755	Upper Handle	1
5	B0756	Left Pivot Handle	1
6	B0757	Right Pivot Handle	1
7	V1171	Rubber Handle Grip	1
8	V1169	Square Handle Grip	1
9	V1170	Square End Cap	1
10	A2053	Truck Loader Hose Strap	1
11	K1130	1/4"-20 X 1-1/4" HHCS GR8	4
12	K2014	1/4"-20 Ny-Flange Lock Nut	6
13	K1135	1/4"-20 X 1-1/2" HHCS	2
14	K0062	Fender Washer / .230 ID x 1.500 OD / Zinc	2
15	K0037	Flat Washer / 1/4" (.75 OD x .312 ID x .060 T)	2
16	K1064	10-24 x 1/2" Phillips PHMS	1
17	K1068	10-24 Nyloc Nut	1
18	K1467	Flat Washer M6 x 12mm OD	1



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 #: R2007 Danger - Never Use Hands





Part #: R2008 Danger - Rotating Blades



Part #: R4008 Caution - Rotating Blades



Part# R0022 Designed & Built In The USA

SECTION III OPERATING INSTRUCTIONS

General Safety

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

Operation And Tips

Perform BEFORE EACH USE the maintenance list referenced in Section IV.

NOTE: If the collection system does not appear to be collecting any debris, turn the engine off. Check the 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.
- * Wet grass and leaves will decrease effectiveness and will increase horsepower requirements.

Disengagement

Shut off the engine by turning the key switch to the OFF position to disengage the Blower/Blade Assembly. Refer to your engine's owner's manual for proper

WARNING: The Blower assembly blades will continue to spin. DO NOT TOUCH the Blower assembly until it has completely STOPPED spinning.

Unloading The Collection System

NOTE: Please refer to your container's manual for proper unloading procedures.

Before unloading your container, be sure the engine is turned OFF and the Blower/Blade Assembly has COMPLETELY STOPPED moving. **NOTE:** Do not allow your collection container to become over-filled as potential damage may occur to your equipment.

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.
- 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, 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 and should therefore be frequently checked for necessary replacements per original manufacturer's specifications.

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:		_

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

TORQUE SPECIFICATIONS

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

		-		Q		
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)
	(10 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)
	Boneter	1-5/16	7/8 - 9 UNC	166 (225)	430 (583)	606 (821
Diame	Diam	1-5/16	7/8 - 14 UNF	184 (249)	474 (642)	668 (905)
		1-1/2	1 - 8 ŲNC	250 (339)	644 (873)	909 (1232
		1-1/2	1 - 12 UNF	274 (371)	705 (955)	995 (1348
ench e "A"	SAE Grade 8	1-1/2	1 - 14 UNF	280 (379)	721 (977)	1019 (138
	(6 Dashes)	1-11/16	1-1/8 - 7 UNC	354 (480)	795 (1077)	1288(1745
Т		1-11/16	1-1/8 - 12 UNF	397 (538)	890 (1206)	1444 (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 (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 (367
		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

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)

<u>NOTES</u>



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