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## **PLUGR AERATOR MANUAL**

### **including:**

**Model PL400B Briggs & Stratton 5.5 HP Intek (Serial #590+)**  
**Model PL400H Honda 5.5 HP OHV (Serial 559+)**  
**22" Compact Turf Aerator**

**Model PL410B Briggs & Stratton 5.5 HP Intek (Serial #458+)**  
**Model PL410H Honda 4.0 HP OHV (Serial #161+)**  
**22" Rental Turf Aerator**

**Model PL600B Briggs & Stratton 6.5 HP Intek (Serial #337+)**  
**Model PL600H Honda 5.5 HP OHV (Serial #543+)**  
**30" Commercial Turf Aerator**

**Model PL800B Briggs & Stratton 6.5 HP Intek (Serial #222+)**  
**Model PL800H Honda 5.5 HP OHV (Serial #354+)**  
**30" Pro Turf Aerator**

**Model PL850B Briggs & Stratton 6.5 HP Intek (Serial #001+)**  
**Model PL850H Honda 6.5 HP OHV (Serial #001+)**  
**30" Pro HD Aerator**

**Model PL1600 12 HP Kohler (Serial #001+)**  
**45" Tow Pro Turf Aerator**

**Model:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

# PLUGR AERATOR SPECIFICATIONS

## **PL400**

Machine Width	22"
Aeration Width Per Pass	22"
Hole Centers	3 5/8" x 6"
Hole Depth (Up to)	2 3/4"
Plug Diameter	5/8"
Approx. Sq. Ft. Per Hour (Up to)	22,000
Shipping Weight	255 lbs.
Actual Machine Weight	208 lbs.
Ball Bearing Wheel	10"
Belt Drive Clutch	V-type
Nylatron Cam Bearings	

## **PL410**

Machine Width	22"
Aeration Width Per Pass	22"
Hole Centers	3 5/8" x 6"
Hole Depth (Up to)	2 3/4"
Plug Diameter	5/8"
Approx. Sq. Ft. Per Hour (Up to)	22,000
Shipping Weight	245 lbs.
Actual Machine Weight	197 lbs.
Ball Bearing Wheel	10"
Belt Drive Clutch	V-type
Nylatron Cam Bearings	

## **PL600**

Machine Width	30"
Aeration Width Per Pass	30"
Hole Centers	3 5/8" x 6"
Hole Depth (Up to)	2 3/4"
Plug Diameter	5/8"
Approx. Sq. Ft. Per Hour (Up to)	27,500
Shipping Weight	298 lbs.
Actual Machine Weight	250 lbs.
Ball Bearing Wheel	10"
Belt Drive Clutch	Double V-type
Nylatron Cam Bearings	

## **PL800**

Machine Width	30"
Aeration Width Per Pass	30"
Hole Centers	2 1/4" x 8"
Hole Depth (Up to)	2 3/4"
Plug Diameter	5/8"
Approx. Sq. Ft. Per Hour (Up to)	27,500
Shipping Weight	320 lbs.
Actual Machine Weight	272 lbs.
Ball Bearing Wheel	10"
Belt Drive Clutch	Double V-type
Nylatron Cam Bearings	

## **PL850**

Machine Width	34"
Aeration Width Per Pass	30"
Hole Centers	2 1/4" x 8"
Hole Depth (Up to)	2 3/4"
Plug Diameter	5/8"
Approx. Sq. Ft. Per Hour (Up to)	30,000
Shipping Weight	358 lbs.
Actual Machine Weight	322 lbs.
Ball Bearing Wheel	10"
Belt Drive Clutch	Double V-type
Nylatron Cam Bearings	

## **PL1600**

Machine Width	56"
Aeration Width Per Pass	45"
Hole Centers	2 1/4" x 8"
Hole Depth (Up to)	2 3/4"
Plug Diameter	5/8"
Approx. Sq. Ft. Per Hour (Up to)	84,000
Shipping Weight	810 lbs.
Actual Machine Weight	720 lbs.
Ball Bearing Wheel	13.50 x 6"
Chain Drive	#60 Chain
Nylatron Cam Bearings	

# ASSEMBLY INSTRUCTIONS

## **PL400**

**Handle:** The folding handle comes attached from the factory. To place into service, retract the handle lock collar, tilt the handle all the way back and engage the handle lock collar into the locked position. Reverse the procedure to tilt handle into storage position.

**Engine:** Engine and gear case are factory filled with high quality detergent SAE 30 oil, (SE, SF, or SG). Check level prior to operation. Please refer to the engine manual or call the engine manufacturer at the phone number listed in the engine instructions if there are any questions regarding the engine. NOTE: GASOLINE CAN BE HAZARDOUS. HANDLE GASOLINE CAREFULLY AT ALL TIMES! USE LEAD FREE GASOLINE **WITHOUT** OIL MIXED IN.

## **PL410**

**Handle:** The folding handle comes attached from the factory. To place into service, retract the handle lock collar, tilt the handle all the way back and engage the handle lock collar into the locked position. Reverse the procedure to tilt handle into storage position.

**Retractor Plate Holder:** To prevent marring the cover with the retractor cable, attach hook to retractor plate eye bolt before folding handle.

**Engine:** Engine and gear case are factory filled with high quality detergent SAE 30 oil, (SE, SF, or SG). Check level prior to operation. Please refer to the engine manual or call the engine manufacturer at the phone number listed in the engine instructions if there are any questions regarding the engine. NOTE: GASOLINE CAN BE HAZARDOUS. HANDLE GASOLINE CAREFULLY AT ALL TIMES! USE LEAD FREE GASOLINE **WITHOUT** OIL MIXED IN.

## **PL600/800**

**Handle:** Slide the handle onto the frame pegs. The control levers should be facing upward. Insert the two (2) clevis pins and fasten with the two (2) hairpin cotter keys or the hardware that is provided.

**Retractor Cable:** Solid wire cable with identical ends attaches to black retractor plate with 1/4" x 1 1/2" bolt and lock nut. This is installed at the factory. The other end is placed on the center handle lever. Install cable and place the clevis pin and cotter pin key back in position.

**Clutch Rod:** Solid rod with clevis attached on one end. Remove cover of machine and locate gold clevis at lower right hand side of machine. Screw rod into clevis until it hits pre-adjustment jam nut. (**NOTE: threads are left hand and rod must be turned counter clockwise.**) Connect clevis end of rod to handle using clevis pin and cotter pin provided. Both clevises should be locked in place by jam nuts at this point.

**Engine:** Engine and gear case are factory filled with high quality detergent SAE 30 oil, (SE, SF, or SG). Check level prior to operation. Please refer to the engine manual or call the engine manufacturer at the phone number listed in the engine instructions if there are any questions regarding the engine. NOTE: GASOLINE CAN BE HAZARDOUS. HANDLE GASOLINE CAREFULLY AT ALL TIMES! USE LEAD FREE GASOLINE **WITHOUT** OIL MIXED IN.

## **PL850**

**Handle:** Slide the handle onto the frame pegs. The control levers should be facing downward. Insert the two (2) clevis pins and fasten with the two (2) hairpin cotter keys.

**Hydrostat Control:** The left side lever controls the hydrostat. Remove nylon nut and install cable ball end over lever shaft, reinstall nylon nut. Lock clutch cable on handle using cable retainer bracket.

**Retractor Rod:** Install L shape rod with threaded end turned into the clevis on center handle lever until stopped by lock nut. Lower portion of the rod to be placed under eye bolt on the retractor plate. The eye bolt should be in the center of the washers. Tighten nylock nut on eye bolt until rod is thoroughly captured.

**Clutch control:** Pull back slide on quick disconnect end of rod and place on ball at machine frame. Remove washer and cotter key and insert rod into handle lever. Replace washer and cotter key

**Hydrostat:** The hydrostat has been serviced at the factory and is ready to operate. The lever in front of the machine marked Hydrostat Bypass needs to be down for hydrostat to run.

**Engine:** Engine and gear case are factory filled with high quality detergent SAE 30 oil, (SE, SF or SG). Check lever prior to operation. Please refer to the engine manual or call the engine manufacturer at the phone number listed in the engine instructions if there are any questions regarding the engine. NOTE: GASOLINE CAN BE HAZARDOUS. HANDLE GASOLINE CAREFULLY AT ALL TIMES! USE LEAD FREE GASOLINE **WITHOUT** OIL MIXED IN. All Plugr aerators will run on E-10 blended (10%) ethanol.

# Safety Instructions

Turf aerators are designed exclusively for the purpose of the improvement of turf grass by removing "plugs" of existing turf to allow the flow of nutrients, water and oxygen to the roots. Any other use is inadvisable and can cause serious injury or death.

## DO

- Always follow operating instructions
- Operate only with the guard/cover in place
- Wear protective equipment including hearing protection, eye shields and proper footwear
- Read and heed all warning labels affixed to the machine
- Remove spark plug wire when machine is not being used to prevent operation without instruction
- Clear area to be aerated of all loose objects and all children
- Flag sprinkler heads and other hidden obstacles and holes
- Practice operation in an open area prior to operation in tight areas
- Keep hands and feet away from operating parts
- Use hearing protection. Tested noise levels range from 86.4dB(A) - 89.5dB(A).

**NEVER ALLOW CHILDREN TO OPERATE POWER EQUIPMENT**

## DO NOT

- Operate on severe slopes (exceeding 15°)
- Allow children to operate or be within 50' of operation
- Operate without guard/cover attached
- Operate when footing is unsure
- Leave machine unattended while running
- Operate when dark or hard to see clearly
- Override the safety shutoff switch
- Lift guard/cover without positioning body to avoid lift injury
- Allow feet to be placed under the rear of machine
- Operate without instructions
- Allow others to operate without access to instructions
- Operate without warning labels clearly readable.

## Operating Instructions PL400, 410, 600, 800, 850

**CAUTION! KEEP FINGERS FROM BEING PINCHED UNDER THE MOVING HAND LEVERS DURING ENGAGEMENT.**

**Bottom lever:** This lever engages the drive belt idler. Pull it up to engage. This lever must be held up for machine operation. When released, forward motion will stop. If the lever fails to spring down when released, contact the manufacturer immediately for adjustment instructions as this is a safety feature.

**Center lever:** This lever swings the plugr mechanism forward into the operating position. Release handle and allow lever to move forward. It will automatically pull itself into operating position.

**To aerate:** Pull the bottom lever up and hold. Release the center lever and allow it to move forward. Do not push machine while operating. The holes will be deeper if you allow the PLUGR to pull itself forward as the tines penetrate the soil.

**To stop PLUGR:** Release the bottom lever. It will automatically spring down to disengage belt idler. Pull the center lever back to lock. SHUT OFF ENGINE if not continuing.

**To open access cover:** To open access cover, remove center screw and release rubber latches. Reverse procedure to replace cover.

**To operate in cold temperatures:** Engage tines in "up" position for at least two minutes prior to actual aeration to warm cam grease.

## Operating Instructions PL1600

- Adjust tongue length so tow vehicle will turn without hitting machine
- Install operator control box on vehicle in a convenient location
- Make sure cord will not catch or be stretched when operating
- Start engine and run at full throttle
- Engine key also turns on accessory box
- With Plugr in raised position, transport to desired area for aeration
- Lower unit until it stops going down
- Tow vehicle must be in forward motion prior to engaging tines
- Start moving forward 2-3 MPH
- Engage tines and adjust speed so green indicator light stays on consistently
- Slow down if red fast light is glowing
- Speed up if red slow light is glowing (**damage to Tow Pro and/or turf will result if machine is operated in this position**)
- Gradual turns can be made while aerating
- To make sharp turns, disengage tines

## Maintenance Instructions PL400

**Cam bearing:** Grease cams on the zerks provided every 10 hours of operation. We recommend Almagard® #3752 Grease from Lubrication Engineers®, Inc.

**Shaft bearings:** Grease both crank shaft ball bearings on the zerks provided every 100 hours of operation.

**Wheel bearings:** Grease wheel ball bearings on the zerks provided every 100 hours of operation.

**Engine oil/filter:** See engine manufacturer's instructions. Change oil and filter at least once a season per engine manual.

**V-Belt:** Adjust the clutch cable at the bracket on the handle by moving the two jam nuts. Be sure to re-tighten jam nuts. Do not overtighten v-belt. This puts a load on the engine gear box bearings. The belt is tight enough when it does not slip during operation.

**Tines** (threaded type): These are adjustable by only the thickness of the jam nut approximately 1/4" and the openings should face the rear of the PLUGR. They are replaceable by loosening the jam lock nut and unscrewing the tine. All threads are right hand. Install the tine with the jam lock nut on the tine and use maximum threads inserted into the plugger casting. Tighten jam lock nut against the plugger casting.

**Decals:** All safety decals are available for replacement at no cost. Do not operate without all warning labels clearly readable.

## Maintenance Instructions PL410

**Cam bearings:** Grease cams on the zerks provided every 10 hours of operation. We recommend Almagard® #3752 Grease from Lubrication Engineers®, Inc. Lubricate through the access cover.

**Shaft bearings:** Grease both crank shaft ball bearings on the zerks provided every 100 hours of operation.

**Wheel bearings:** Grease wheel ball bearings on the zerks provided every 100 hours of operation.

**Engine oil/filter:** See engine manufacturer's instructions. Change oil and filter at least once a season per engine manual.

**V-Belt:** Adjust the clutch cable at the bracket on the frame by moving the cable to the next hole. Do not overtighten v-belt. This puts a load on the engine gear box bearings. The belt is tight enough when it does not slip during operation.

**Tines** (threaded type): These are adjustable by only the thickness of the jam nut approximately 1/4" and the openings should face the rear of the PLUGR. They are replaceable by loosening the jam lock nut and unscrewing the tine. All threads are right hand. Install the tine with the jam lock nut on the tine and use maximum threads inserted into the plugger casting. Tighten jam lock nut against the plugger casting.

**Decals:** All safety decals are available for replacement at no cost. Do not operate without all warning labels clearly readable.

## Maintenance Instructions PL600, PL800, PL850

**Cam bearing:** Grease cams on the zerks provided every 10 hours of operation. We recommend Almagard® #3752 Grease from Lubrication Engineers®, Inc.

**Shaft bearings:** Grease both crank shaft ball bearings on the zerks provided every 100 hours of operation. PL850: Grease two bearings on Hydrostat Drive next to the clutch belts every 20 hours.

**Wheel bearings:** Grease wheel ball bearings on the zerks provided every 100 hours of operation. PL850: Grease two bearings on front axle every 20 hours.

**Engine oil/filter:** See engine manufacturer's instructions. Change oil and filter at least once a season per engine manual. Hydrostat--See manual for Instructions on PL850.

**V-Belt:** Adjust V-belt tightness with adjustment holes in pivoting clutch bracket. It should only be necessary to move to the next hole. Do not overtighten V-belt. This puts a load on the engine gear box bearings. The belt is tight enough when it does not slip during the operating cycle.

**Tines (threaded type):** These are adjustable by only the thickness of the jam nut approximately 1/4" and the openings should face the rear of the PLUGR. They are replaceable by loosening the jam lock nut and unscrewing the tine. All threads are right hand. Install the tine with the jam lock nut on the tine and use maximum threads inserted into the plugger casting. Tighten jam lock nut against the plugger casting.

**Decals:** All safety decals are available for replacement at no cost. Do not operate without all warning labels clearly readable.

## Maintenance Instructions PL1600

**Cam bearing:** Grease cams on the zerks provided every 10 hours of operation. We recommend Almagard® #3752 Grease from Lubrication Engineers®, Inc.

**Shaft bearings:** Grease three crank shaft ball bearings on the zerks provided every 100 hours of operation.

**Wheel bearings:** Grease wheel ball bearings on the zerks provided every 100 hours of operation.

**Engine oil/filter:** See engine manufacturer's instructions. Change oil and filter at least once a season per engine manual.

**Chain:** Adjust chain tightness with adjustment holes in engine plate. Do not overtighten chain. This puts a load on the engine gear box bearings. The chain is tight enough when it does not have slack during the operating cycle.

**Tines (threaded type):** These are adjustable by only the thickness of the jam nut approximately 1/4" and the openings should face the rear of the PLUGR. They are replaceable by loosening the jam lock nut and unscrewing the tine. All threads are right hand. Install the tine with the jam lock nut on the tine and use maximum threads inserted into the plugger casting. Tighten jam lock nut against the plugger casting.

**Decals:** All safety decals are available for replacement at no cost. Do not operate without all warning labels clearly readable.

# Machine Labels


**CHECK OIL BEFORE EACH USE. GREASE ALL FITTINGS EVERY 10 HOURS OF OPERATION. WE RECOMMEND ALMAGARD® #3752 GREASE FROM LUBRICATION ENGINEERS® INC.**

**TO AERATE**

1. Retract Tines With Center Control Lever.
2. Begin Forward Motion of Aerator Manually.
3. Engage Drive Lever With Aerator Already in Motion.

PL400, PL410, PL600, PL800 Operation Label

**CAUTION!**  
**AWKWARD LIFT.**



**COVER MUST LIFT STRAIGHT UP TO ACCESS MECHANISM!**

Lifting Caution Label  
(Not Included on PL410)

**ALWAYS USE EYE AND EAR PROTECTION.**




THIS MACHINE PRODUCES NOISE LEVELS THAT TEST IN THE RANGE OF 86.4dB(A) - 89.5dB(A).

Protective Equipment Label

**ATTACH HOOK TO RETRACTOR PLATE EYE BOLT BEFORE FOLDING HANDLE**

Operation Label  
(PL410 only)

SourceOne, Inc.  
603 L STREET  
LINCOLN, NEBRASKA    

MODEL \_\_\_\_\_  
SERIAL \_\_\_\_\_  
YEAR \_\_\_\_\_  
WT. \_\_\_\_\_ LBS. \_\_\_\_\_ KG.

Product Label

**WARNING**

- HOT MUFFLER
- MAY EXCEED 150

Warning: Hot

**WARNING**

- SHIELD MISSING
- DO NOT OPERATE

Warning: Shield

**DANGER**

**PINCH POINT**



Pinch Point Label

**DANGER**

KEEP SHIELD IN PLACE  
MOVING PARTS  
KEEP HANDS AND FEET AWAY  
WHEN IN OPERATION  
SHUT ENGINE OFF WHEN  
SERVICING



Pinch Point Label

**CHECK OIL BEFORE EACH USE. GREASE ALL FITTINGS EVERY 10 HOURS OF OPERATION. WE RECOMMEND ALMAGARD® #3752 GREASE FROM LUBRICATION ENGINEERS® INC.**

**TO AERATE**

1. Start Engine
2. Push Center Handle Forward
3. Engage Left Lever To Begin Forward Motion
4. Engage Right Lever to Engage Tines

850 Operation Label

**PULL FOR FRWD - PUSH FOR REV W/ TINES RAISED**  
JALE HACIA ARRIBA PARA AVANZAR - EMPUJE HACIA ABAJO PAR DAR REVERSA CON DIENTES ARRIBA

850-LHH

850 Left Hand Lever

**PULL TO ENGAGE TINES**  
JALE HACIA ARRIBA PARA ENGRANAR LOS DIENTES

850-RHH

850 Right Hand Lever

**PULL TO ENGAGE TINES**  
JALE HACIA ARRIBA PARA ENGRANAR LOS DIENTES

850-RHH

PL400, PL410, PL600, PL800 Handle

**FORWARD TO LOWER TINES  
BACK TO RAISE TINES**  
AVANCE PARA BAJAR LOS DIENTES  
DE REVERSA PARA LEVANTAR LOS DIENTES

850-CHH

All Models

**OPERATION IN COLD TEMPERATURES**

ENGAGE TINES IN "UP" POSITION FOR AT LEAST TWO MINUTES PRIOR TO ACTUAL AERATION TO WARM CAM GREASE

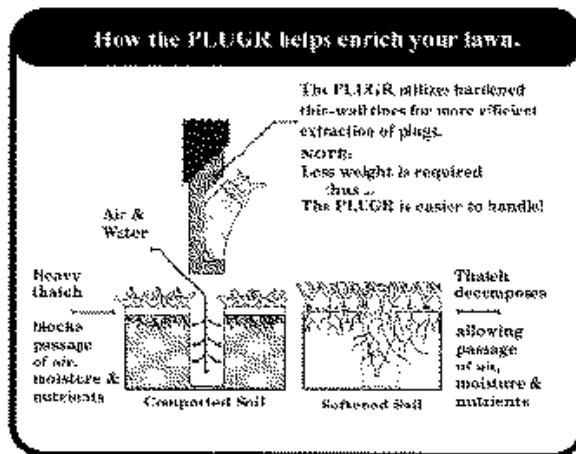
850-3

Operation Label

**HYDROSTATIC BYPASS**  
DESVIO HIDROSTATICO

850-2

850 Bypass Lever



## **WARRANTY**

### **PL400, PL600, PL800, PL850, PL1600**

#### LIMITED WARRANTY FOR PLUGR LAWN AERATOR (engine excluded)

For one full year from date of purchase and first use, SourceOne will replace for the original purchaser free of charge any parts of the machine (excluding engine, hydrostat, tines and belts) found upon examination by SourceOne or its approved agent to be defective in material or workmanship or both. In addition, the entire crankshaft assembly will be warranted for two full years subject to the same conditions above. SourceOne will not reimburse any party for warranty labor. This is the exclusive warranty.

All transportation charges on parts submitted for replacement must be borne by purchaser. For warranty service contact the dealer from whom you purchased machine or the factory in Lincoln, Nebraska which reserves the right to examine the machine and make its own evaluation at its option. THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM DATE OF PURCHASE. TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. Some jurisdictions do not allow limitations on how long an implied warranty lasts, and some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which may vary from jurisdiction to jurisdiction.

### **PL410**

#### LIMITED WARRANTY FOR PLUGR LAWN AERATOR (engine excluded)

For one full year from date of purchase and first use, SourceOne will replace for the original purchaser free of charge any parts of the machine (excluding engine, tines and belts) found upon examination by SourceOne or its approved agent to be defective in material or workmanship or both. SourceOne will not reimburse any party for warranty labor. This is the exclusive warranty.

All transportation charges on parts submitted for replacement must be borne by purchaser. For warranty service contact the dealer from whom you purchased machine or the factory in Lincoln, Nebraska which reserves the right to examine the machine and make its own evaluation at its option. THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM DATE OF PURCHASE. TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. Some jurisdictions do not allow limitations on how long an implied warranty lasts, and some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which may vary from jurisdiction to jurisdiction.

# **PLUGR**



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**Ask for a FREE Demonstration Video or View it on the Web at  
[www.plugr.com](http://www.plugr.com)**

**Phone: 888-418-9065**

**Fax: 402-474-6604 or email: [plugrsales@sourceonex.com](mailto:plugrsales@sourceonex.com)**