



**Product Manual**

# **EcoLiner™ Plus**

## **Battery Powered Field Striping Machine**

**10004484**



**Proudly Made in the USA**  
**Newstripe.com • 303-364-7786**

4484.0726

# EcoLiner™ Plus Battery Powered Field Striping Machine

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**Thank you for purchasing the Newstripe  
EcoLiner™ Plus Battery Powered Field  
Striping Machine.**

Please read over the instructions and make  
sure you understand the operating  
procedures before using the unit.

Please check the serial number on your unit.  
This Manual is for units with serial number  
1017477 and above only. For units with serial  
numbers below 1017477, please contact  
Newstripe for the correct product manual.



# EcoLiner™ Plus Battery Powered Field Striping Machine



## PRECAUTIONARY WARNINGS

- **PLEASE** read and understand all operation instructions as detailed in this manual. Failure to follow specified instructions may result in equipment damage or severe injury to personnel.
- **DO NOT** use latex paints from hardware stores or home improvement centers in your machine. These types of paints have binders in them that will adhere to the internal parts of the pump, causing damage. You will not be able to clean these substances from the pump. You must use good quality true water based athletic field striping paint in your machine.
- **DO NOT** use solvent based paints in this machine. Use only good quality true water based athletic field striping paint.  
**NOTE:** Damage caused by use of the wrong paint is NOT COVERED UNDER WARRANTY!
- **ALWAYS** thin the paint in accordance with the manufacturer's recommendations prior to use. Most field-marking paints must be thinned before use with the EcoLiner. These paints are typically thinned at a minimum ratio of 1:1.
- **DO NOT** use paint that has not been thinned, as it will clog your machine.
- **ALWAYS** strain the paint before use. Field marking paint often has oversized material, lumps, and debris. If not properly strained, these contaminants will be drawn into the hoses, pump, and spray nozzle or spray gun where they may restrict paint flow.
- **NEVER** perform maintenance on the machine while the system is under pressure.
- **DO NOT** use solvents to clean the system. Solvents will damage internal components. Use only warm soapy water.
- **ALWAYS** consult your Facility Safety and/or Personnel Department for specified safety protocols prior to operating this equipment.

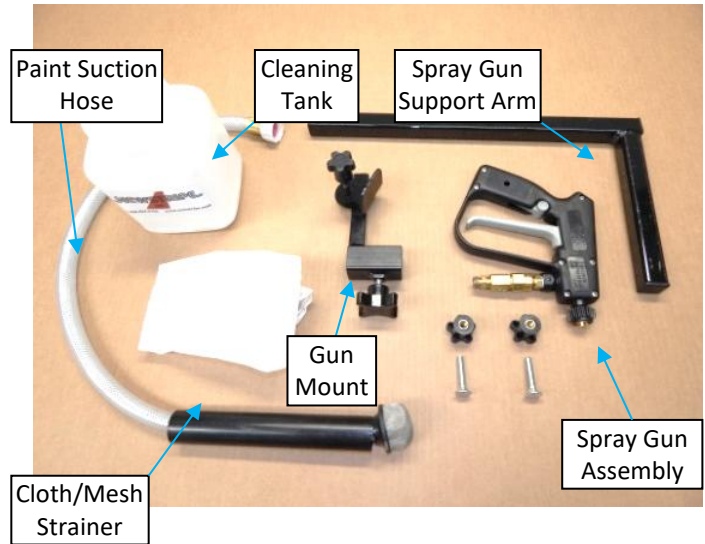
# EcoLiner™ Plus Battery Powered Field Striping Machine

## **Your EcoLiner™ Plus Box Should Include:**

- Chassis/Handle Assembly with Paint Hose
- Paint Pail Snap-On Lid
- Cloth/Mesh Strainer
- Cleaning Tank

## **Parts bag containing:**

- (2) Female Star Knobs
- (2) Large Star Knobs
- (2) Carriage Bolts
- Spray Head Support Arm
- Spray Gun Assembly with Gun Mount
- Paint Suction Hose
- Product Manual

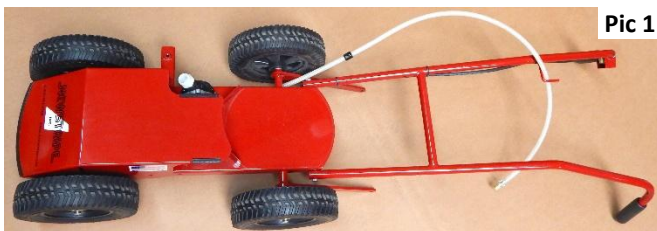


## **ASSEMBLY**

### **Required Items and Tools**

- 12V 18Ah AGM Battery. (Not Included – See Page 3 for Specifications.)
- 5-Gallon Pail (Not Included)
- Two 1/2" Combination Wrenches or Adjustable Wrenches.

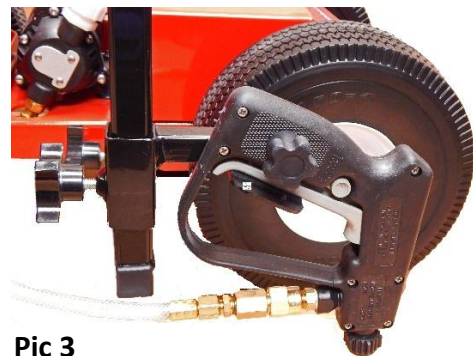
1. Remove the unit and the parts from the packaging. Leave the foam wraps on the handle braces at this time. Lift up on the rear of the machine and rotate the handles out from under the chassis.
2. Remove the foam wraps from the handle braces and then position the spray hose so that it is in front of the handle. (Pic 1)



3. Rotate the handle to the raised position. Rotate the left handle brace to align the top hole with the hole in the handle. Insert one carriage bolt through the brace and handle from the outside. Use one female star knob to secure the brace. (Pic 2)
4. Rotate the right handle brace to align the top hole with the hole in the handle. Insert one carriage bolt through the brace and handle from the outside. Slide the paint hose clamp over the carriage bolt. Use one female star knob to secure the brace and hose. (Pic 2)



5. Insert the spray head support arm into the receiver tube on right side of the chassis until it stops and then secure it with one large star knob.
6. Slide the spray gun and gun mount onto the upright as shown below. Secure the gun mount with one large star knob. Raise or lower the gun to adjust the line width. (Pic 3)



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## ASSEMBLY CONTINUED

7. Attach the spray hose to the gun and lightly tighten it with a wrench. (Pic 3)
8. Attach the suction hose to the pump inlet and hand tighten only.
9. Insert the cleaning tank in the cleaning tray by simply pressing it into place. (Pic 4)

**Pic 4**



10. Place one 12V 18Ah AGM Battery (Not included) in the battery tray and attach the black wire from the pump to the negative (-) terminal and then attach the white wire with the fuse from the switch harness to the positive terminal (+). (Pic 5)

**Pic 5**



### **12V 18Ah AGM Battery for EcoLiner Plus (Not Included):**

These are high performance sealed 12 Volt 18 Amp Hour AGM Batteries available at most auto parts stores or online. The battery dimensions are: 6-7/8" Long X 3-7/16" Wide X 6-1/8" Tall.

Some manufacturer part numbers for this battery:

Interstate Batteries (Part# FAYTX20H)

NAPA Auto Parts (Part# PSB 20BS)

O'Reilly Auto Parts (Part# GTX20BS)

Yuasa (Part# YTX20-BS)

PowerSonic (Part# PTX20-BS)

SigmatTek (Part# STX20-BS)

**Note:** As you look at the side of the battery with the terminals, correct orientation is, +/- (Positive Left/Negative Right). The battery part number must not have a letter "L" in it, or the terminal orientation will be incorrect.

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## OPERATION

1. Always prime the EcoLiner prior to use. Fill the pail  $\frac{1}{2}$  full of water and secure the lid, making sure the suction filter is at the bottom of the pail. It is advisable to familiarize yourself with the equipment operation by using water the first time.
2. Turn on the pump with spray rocker switch on the handle. Allow 15-30 seconds for the pump to prime. Check for leaks and tighten any fittings as required.

**NOTE:** The center position of the switch is off, the rear position is momentary on, and the forward position is continuous on.

3. The EcoLiner is shipped with a nozzle installed for spraying a 4" wide line. Raising or lowering the spray nozzle will increase or decrease the line width.
4. Unsnap the pail lid and pour properly thinned and strained paint into the pail.

**Note:** These paints are typically thinned at a minimum ratio of 1:1. Follow the manufacturer's suggested paint thinning instructions.

5. Position the spray nozzle where the painted line is to begin. Press the back part of the spray rocker switch to the momentary on position for 15-30 seconds to prime the pump.
6. Engage the spray rocker switch to the desired on position when ready to paint a line. An even flow of paint should spray from the nozzle.
7. Place the spray rocker switch in the center (off) position when you would like the machine to stop spraying.
8. To use the gun as a hand gun, remove the spray gun from the gun mount. Place the rocker switch in the forward (continuous on) position. After you are finished, place the rocker switch in the center (off) position and return the spray gun to the gun mount.

## RECHARGING THE BATTERY

**NOTE:** Before charging the battery, please read the Automatic Battery Charger Instructions.

1. Make sure the spray rocker switch is in the center "Off" position. All wiring may stay connected during battery charging.

**WARNING:** Connect and disconnect the battery charger clips ONLY when the battery charger is unplugged.

2. Connect the red positive (+) clip of the battery charger to the positive (+) terminal on the battery.
3. Connect the black negative (-) clip of the battery charger to the negative (-) terminal of the battery.

4. Plug the battery charger into any standard 110/120 volt AC outlet. If the battery is receiving power and charging, the yellow/orange LED indicator on the charger should illuminate solid.
5. If the Red LED indicator is flashing, the charger connections are incorrect. If the Red LED indicator is illuminated solid, the battery is bad.
6. When the Green LED indicator on the battery charger illuminates, the battery is fully charged, and the charger is in maintain mode.
7. Unplug the battery charger and then disconnect the battery in reverse order (negative clip first).

## MAINTENANCE

| ITEM                          | CHECK            | MAINTENANCE ACTION                                        |
|-------------------------------|------------------|-----------------------------------------------------------|
| Paint Pail, Hoses, and Nozzle | After every use  | Clean the paint pail, hoses, and nozzle.                  |
| Pump, Hoses and Nozzle        | After every use  | Run soapy water through the pump for additional cleaning. |
| Wheels                        | Lubricate Weekly | Grease the wheels with bearing grease.                    |
| Handles                       | Monthly          | Check the handles for tightness to frame.                 |

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## CLEANING PROCEDURE

1. When your striping job is complete, remove the pail lid and set aside. Pull out the suction hose and place it in a clean container of water. Remove the pail of unused paint from the machine and cover it for use the next time you stripe.
2. Wipe off or rinse off the suction hose, foot filter, and pail lid.
3. Remove the nozzle cap, nozzle, and valve seat from the gun and put them in a container of water to soak.
4. Place an empty pail on the machine and add two gallons of clean soapy water. Place the suction hose in the pail on the machine.
5. Place the spray rocker switch in the forward (continuous on position) to flush the clean soapy water through the spray system and gun into a catch container until they are cleared of all paint.

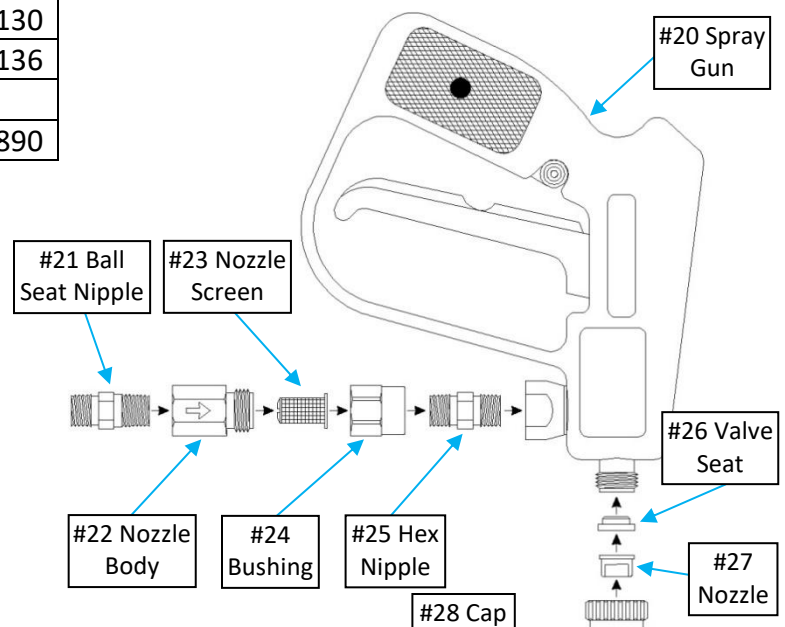
6. Clean the nozzle parts that have been soaking and reassemble them on spray gun.
7. Clean and rinse the exterior of machine. **Pressure washing is not recommended.** Use warm soapy water once a week.

**NOTE:** Always leave some of the cleaning solution or Newstripe Pump Defender in the pump when not in use. This keeps the internal pump components lubricated. **DO NOT** run the pump without liquid. If you need to store the unit for extended periods or in freezing temperatures, run a solution of warm water and dishwashing detergent through the pump to clean out all paint. After flushing the system replace the soap water solution with Part Number 10000459, Newstripe Pump Defender (Not Included) to protect the spray system from freezing

## SPRAY GUN ASSEMBLY

| Item | Description                   | Part Number |
|------|-------------------------------|-------------|
| #20  | Spray Gun Assembly (Complete) | 10004601    |
| #21  | ¼" Ball Seat Nipple           | 10000731    |
| #22  | Nozzle Body                   | 10000028    |
| #23  | Nozzle Screen (4-Pack)        | 10003496    |
| #24  | Bushing                       | 10002641    |
| #25  | ¼" Hex Nipple                 | 10004130    |
| #26  | Valve Seat                    | 10000136    |
| #27  | 8004 Nozzle (Included)        | N/A         |
| #28  | Nozzle Cap (4-Pack)           | 10001890    |

| Nozzle (4-Pack) | Application Description    | Part Number |
|-----------------|----------------------------|-------------|
| 5002            | 2" - 3" Lines              | 10001891    |
| 8002            | 4" - 5" Lines (Short Turf) | 10001892    |
| 8004            | 4" - 5" Lines              | 10001893    |
| 8005            | 4" - 5" Lines (Heavy Turf) | 10003493    |
| 9505            | 5" - 6" Lines              | 10001894    |

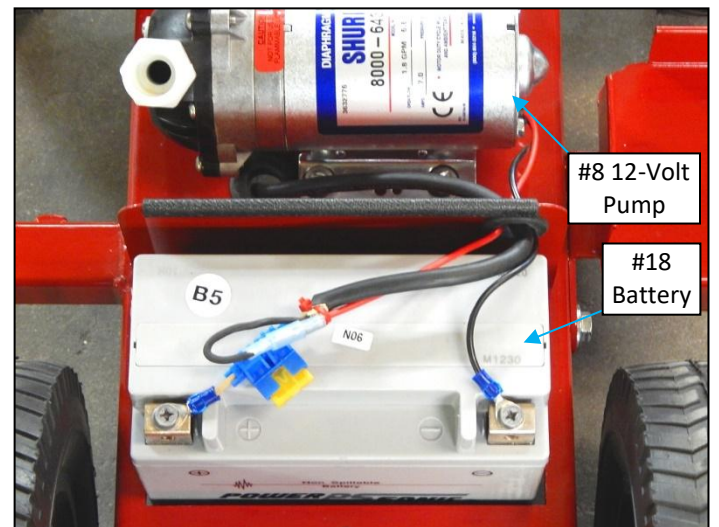
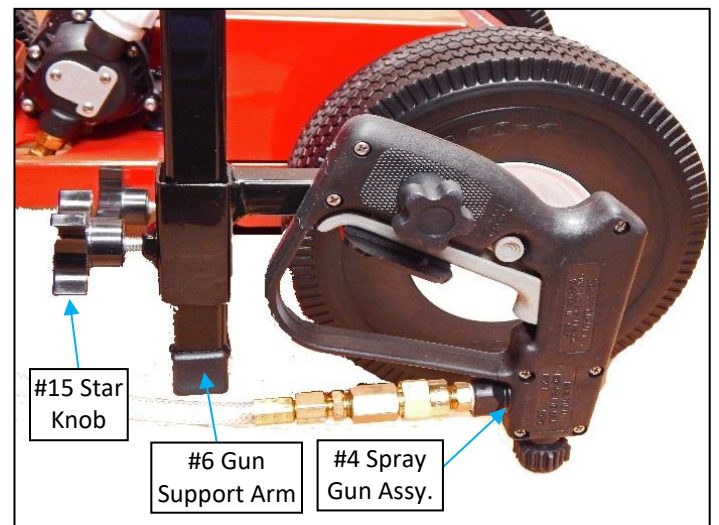


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## PARTS LIST

| Item | Description                 | Part Number |
|------|-----------------------------|-------------|
| #1   | Chassis                     | 10004487    |
| #2   | Handles                     | 10004488    |
| #3   | Handle Support Braces       | 10004489    |
| #4   | Spray Gun Assembly          | 10004601    |
| #5   | Spray Control Rocker Switch | 10004474    |
| #6   | Support Arm, Spray Gun      | 10004491    |
| #7   | Lid, EcoLiner Paint Pail    | 10004516    |
| #8   | Pump, 12 Volt Diaphragm     | 10004551    |
| #9   | Hose Assembly, Suction      | 10004498    |
| #10  | Cleaning Tank               | 10004482    |

| Item | Description                  | Part Number |
|------|------------------------------|-------------|
| #11  | Suction Filter (Not Shown)   | 10002842    |
| #12  | Wiring Harness               | 10004499    |
| #13  | Fuse, ATO/ATC 20 Amp         | 10002836    |
| #14  | Hose Assembly, Paint         | 10000695    |
| #15  | Star Knob (2)                | 10000007    |
| #16  | Female Star Knob             | 10004480    |
| #17  | Wheel & Tire Assembly        | 10004705    |
| #18  | Battery (Not Included)       | N/A         |
| N/A  | Spray Shields (Optional Kit) | 10004506    |



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## TROUBLESHOOTING GUIDE

| PROBLEM                                                               | POSSIBLE CAUSE                                                                                                                  | REMEDY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The pump will not run.                                                | The battery is not charged.<br>The fuse is blown.<br>The fuse has become disconnected.                                          | Charge the battery.<br>Change the fuse.<br>Check the fuse holder connection and wires.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| The pump will not prime.                                              | The pump or hoses may be restricted.                                                                                            | Disconnect the supply and discharge hoses and clean them. Pour hot soapy water into the inlet of the pump and let it soak. Reconnect the hoses and restart the pump.                                                                                                                                                                                                                                                                                                                                                                              |
| The pump still will not prime.                                        | The spray system was not thoroughly cleaned after the previous use.                                                             | Pour more hot soapy water into the inlet of the pump. Jog the pump by operating the toggle switch briefly to get the soap into the pump. Let it soak for 15-30 minutes and then attach the hoses and then try pumping water. If the pump starts pumping water, let it circulate the water for 5-10 minutes before adding paint. The pump does not need to be rinsed of the soap, as it will mix easily with the paint. If the pump still will not prime, call Newstripe for assistance.<br><b>Disassembly of the pump will void the warranty.</b> |
| The paint is leaving the nozzle in a stream, and not a spray pattern. | The paint is too thick.                                                                                                         | Thin the paint.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| The spray stream is inconsistent.                                     | The nozzle screen is obstructed.<br>The suction hose screen is clogged or obstructed.                                           | Remove the nozzle screen and clean or replace it.<br>Remove suction hose and screen. Filter the paint, clean the screen, and remove any clogs.                                                                                                                                                                                                                                                                                                                                                                                                    |
| The spray pattern is too narrow or is uneven.                         | The spray gun height is incorrect.<br>The nozzle may be the wrong size, or misaligned.<br>The paint viscosity may be too thick. | Adjust the spray gun height up or down to achieve the desired line width.<br>See the Nozzle Assembly Guide. The nozzle slot must be at 90 degrees to the direction of travel.<br>Thin the paint in accordance with the manufacturer's recommendations.                                                                                                                                                                                                                                                                                            |
| Paint drips from the nozzle after it is shut off.                     | The valve seat in the spray gun is dirty or worn.                                                                               | Disassemble the gun and clean or replace the valve seat.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Your machine is designed to be simple and safe to operate.

**Please call Newstripe at 303-364-7786** if you have any questions during setup, painting, or cleaning.

# EcoLiner™ Plus Battery Powered Field Striping Machine

10004484

## 24 Month Warranty

Newstripe, Inc. ("Newstripe") warrants to the original purchaser, for 24 (Twenty Four) Months after date of purchase, that the equipment\* hereby sold shall be free of defects in materials and workmanship. This warranty does not extend to any damage or malfunction resulting in misuse, neglect, accident, improper operation, or normal wear and tear.

\* Gasoline engines, compressors, low pressure pumps, and transaxles are furnished with their respective manufacturers' warranties only and are not covered by any warranty of Newstripe. High pressure pumps manufactured by Newstripe (excluding wear items like diaphragms and valves) are warranted for materials and workmanship for 12 Months after the date of purchase.

Damage incurred in shipment from Newstripe to the purchaser is the total responsibility of the shipping carrier. The purchaser is responsible for noting any damages on the Bill of Lading of the shipping carrier and Newstripe will work with the shipping carrier to resolve any damages incurred.

The Newstripe obligation under this warranty and any implied warranties is limited to replacement or repair of defective parts of its manufacture without charge for 24 (Twenty Four) Months from date of purchase. For service under this warranty, the purchaser shall obtain an approved Return Materials Authorization (RMA) from Newstripe and then ship the defective part or parts of the equipment, transportation prepaid by the purchaser, to Newstripe together with a written description of any claimed defect and proof of purchase date of the materials being returned. To review Newstripe's complete guidelines for warranty claims and returns, please visit our website at [www.newstripe.com](http://www.newstripe.com).

The responsibilities described above are the only responsibilities of Newstripe under this written warranty or any implied warranty and may be exercised only within 24 (Twenty Four) Months from the date of original purchase. In no event shall Newstripe be liable for incidental or consequential damages and no person had any authority to bind it to any representation or warranty. Newstripe is not responsible for work done, materials furnished, or repairs made by others without its specific written authorization.

This warranty shall be in lieu of any and all other warranties, expressed or implied, including any warranties of merchantability or fitness for a particular purpose, and there is no other representation or warranty of any kind with respect to the goods sold hereby except as set forth herein. It is expressly agreed that this warranty shall be limited to the adjustment, repair or replacement of parts and the labor and services required thereby. In no event, including any claim of negligence, shall Newstripe be liable for incidental or consequential damages.



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