

**Pioneer**<sup>®</sup>  
ATHLETICS

**STAR**  **LINER**<sup>™</sup>

**Featuring Pioneer's  
Exclusive  
"Plug & Stripe"  
Technology**

ingredients matter.

---

**INSTRUCTION MANUAL & PARTS LISTING  
STARLINER V-5**

**800-877-1500  
[www.pioneerathletics.com](http://www.pioneerathletics.com)**

# TABLE OF CONTENTS

## THE STARLINER™

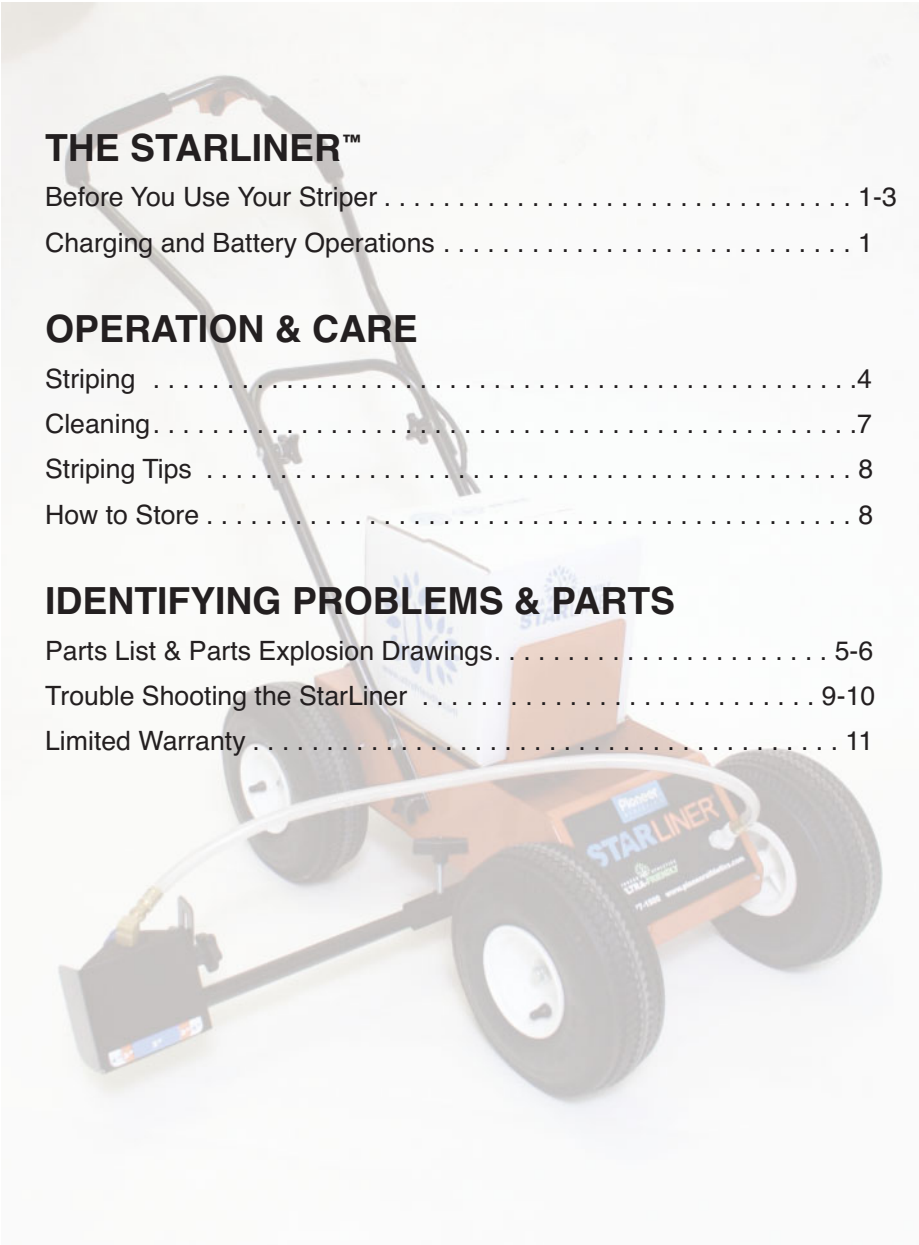
Before You Use Your Striper . . . . .	1-3
Charging and Battery Operations . . . . .	1

## OPERATION & CARE

Striping . . . . .	4
Cleaning . . . . .	7
Striping Tips . . . . .	8
How to Store . . . . .	8

## IDENTIFYING PROBLEMS & PARTS

Parts List & Parts Explosion Drawings . . . . .	5-6
Trouble Shooting the StarLiner . . . . .	9-10
Limited Warranty . . . . .	11



*Upon receipt of the StarLiner, please immediately remove and inspect the striper for any damage and/or missing parts. If any damage is seen, please contact the delivering company and Pioneer Customer Service immediately. Pioneer Customer Service can be reached at **800-877-1500** between the hours of 8am and 4:30 pm EST.*

## Congratulations on the purchase of your new StarLiner.

### Inside the box, you will find:

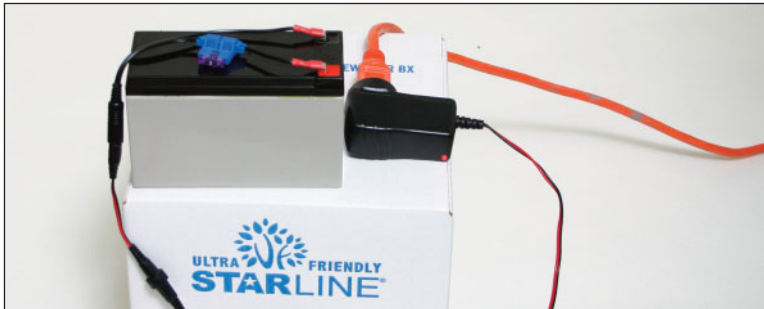
- StarLiner Electric Striping Machine
- Battery
- Side Spray Box with Hose
- Water/Flush Bottle
- PHD Ultra-Friendly Cleaner
- Envelope Containing:
  - Clean-out Hose
  - Battery Charger
  - Striping Tips
  - Paint Connector Plug
  - Operation Manual

## Step One

### Charging and Battery Operation

In the charger package you will find three different connectors for charging. Use the connector with the metal tube that fits into the battery wire harness. The charger should be plugged into a working outlet.

The light on the charger will appear green when plugged in. When the charger is connected to the battery, the light will turn red. If the light does not turn red, check the fuse and wire connections. The battery should remain charging, uninterrupted, until the light changes to green. Once the light changes to green, unplug the battery and unplug the charger from the wall.



**Caution: If the charger remains plugged into the battery it could over-charge and damage the charger or battery.**

## Step Two

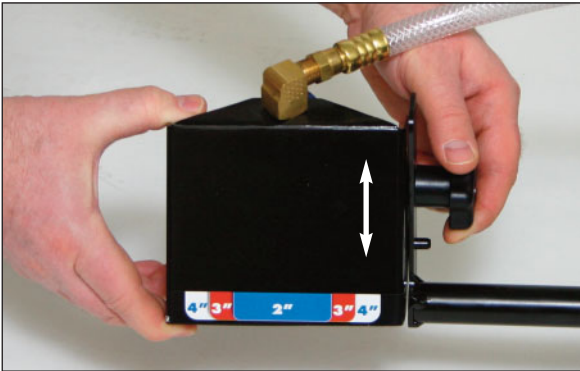
### Handle Setup

Loosen the wing nuts located at mid-handle. Remove the lower wing nuts and bolts from StarLiner frame. Straighten the handle and tighten the mid-handle wing nuts. Align the lower bolt holes on the handle and frame. Reattach the bolts and wing nuts.

## Step Three

### Setup and Operation of the Side Spray Box

Located on the side of the StarLiner is a winged bolt. Loosen the bolt and extend the spray arm. The side spray box will have a winged bolt and hose attached. Remove the wing nut and align the threaded stud and alignment pin in the slot of the spray arm. Reattach the wing nut. To change the line width, raise or lower the spray box.



**Caution: Always support the spray box with your hand when adjusting the height or sliding the spray arm in and out. Failure to do so may cause damage to the spray box or spray arm.**

## Step Four

### Paint line connection

Connect the spray box paint line by pushing the white quick-connect onto the male connector on the front of the StarLiner. You will hear an audible click when a positive connection is made. Be sure the paint hose does not interfere with or become pinched by the tire or any moving parts. To disconnect, press the metal thumb tab on the white quick-connect. The connector should pop off from the male connector.

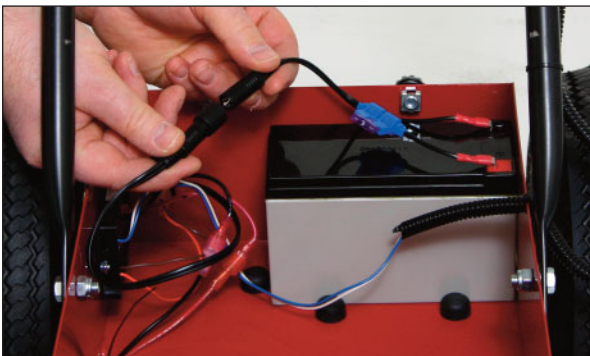


## Step Five

### Install Battery

Loosen the two thumb screws on the back of the StarLiner and lift off the battery cover. Place the battery in between the battery bumpers. Secure the battery connector to the connection on the circuit board. Reinstall the battery cover, watch to not pinch wires or force the cover into place. Tighten the thumb screws.

**Caution: Do not operate the StarLiner without all covers properly in place and secured. Failure to do so could result in damage to the electronic components or paint box.**



**You are now ready to test the operation of your StarLiner.**

We recommend trying the StarLiner with water before using paint.

Connect the clean-out hose to the quick connect on the StarLiner. You will hear an audible click when the hose is connected properly. After connecting, place the clean-out hose in the bottle filled with water. Turn the switch on the handle to the "ON" position. The pump should draw the water from the bottle. Move the StarLiner in a forward direction to check the line width. Turn the switch to the "OFF" position to stop the flow of water. Water typically sprays 1/3 farther than paint. Adjust your line width accordingly. You can also change tips to achieve different line widths. This is a good time to check the High/Low switch on the back of the StarLiner. We recommend using the High position for priming paint and when applying a heavier line application. The low setting will put out less paint and help to achieve longer lines. Walking speed plays the largest part in how far you can paint with one box of paint.

When you are ready to use the paint, disconnect the clean-out hose by pressing the button on the machine side of the hose. The Clean-out hose should pop off.

Follow the paint preparation instructions on the StarLine paint carton.

**Caution: PIONEER STARLINE PAINT IS SPECIFICALLY DESIGNED TO WORK WITH THE STARLINER. ANY OTHER PAINT USED WITH THIS MACHINE MAY RESULT IN POOR LINE PERFORMANCE, CLOGGING, AND/OR PUMP DAMAGE. THIS MAY VOID ANY AND ALL WARRANTIES ASSOCIATED WITH THE STARLINER.**

Insert the StarLine paint carton onto the StarLiner plate assembly. The plastic lip of the paint bag should slide through the plate-slot. This will hold the bag in place while connecting. Support the box and connect the StarLiner paint connector with the StarLine paint. You will hear an audible click when the proper connection is made.



Once secure, lower the StarLine box to the battery cover. You are now ready to begin striping. We recommend practicing in an off area so you can get accustomed to the operation of all switches and to select the tip that best suits your needs.

# PARTS LIST - STARLINER (Model V-5)

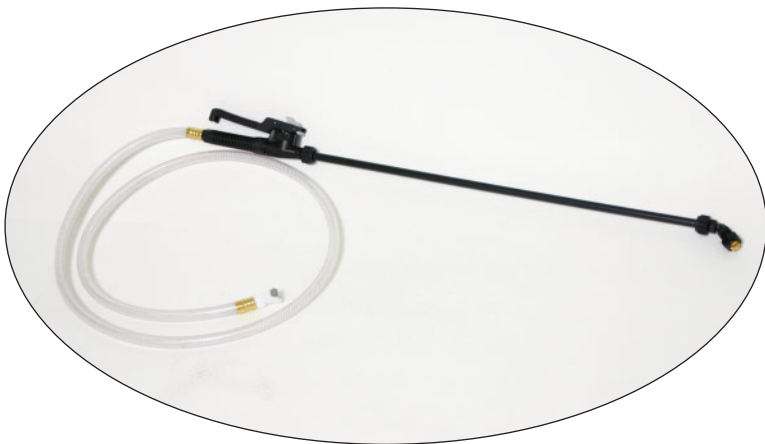
ITEM	PART	DESCRIPTION	ITEM	PART	DESCRIPTION
1	1000	Switch (Handlebar)	8	1035	Slide Arm Assembly
2	1003	Wheel	9	1040	Hose Panel to Spray Box (32")
3	SCB	Circuit Board	10	1029	Panel Mount Connector
4	1025	Switch - High / Low	11	1018	Hose Container to Pump (14")
5	1005	Battery	--	1001	Pump
--	1021	Battery Cable with Fuse	--	1030	Hose Pump to Panel (10")
--	1024	3 Amp Fuse	--	1004	Battery Charger
6	1513	Elbow - Male x Female	--	1009	Container Paint Plug
7	1011	Spray Box Assembly	--	1013	Clean-out Hose Assembly
--	1008	Nozzle Check Body	--	1033	Hand Hose with Wand (6')
--	0114P	Nozzle Cap	--	PHDUFQ	PHD UF Cleaner (Qt.)
--	0115P	Nozzle Screen (Plastic)			

---

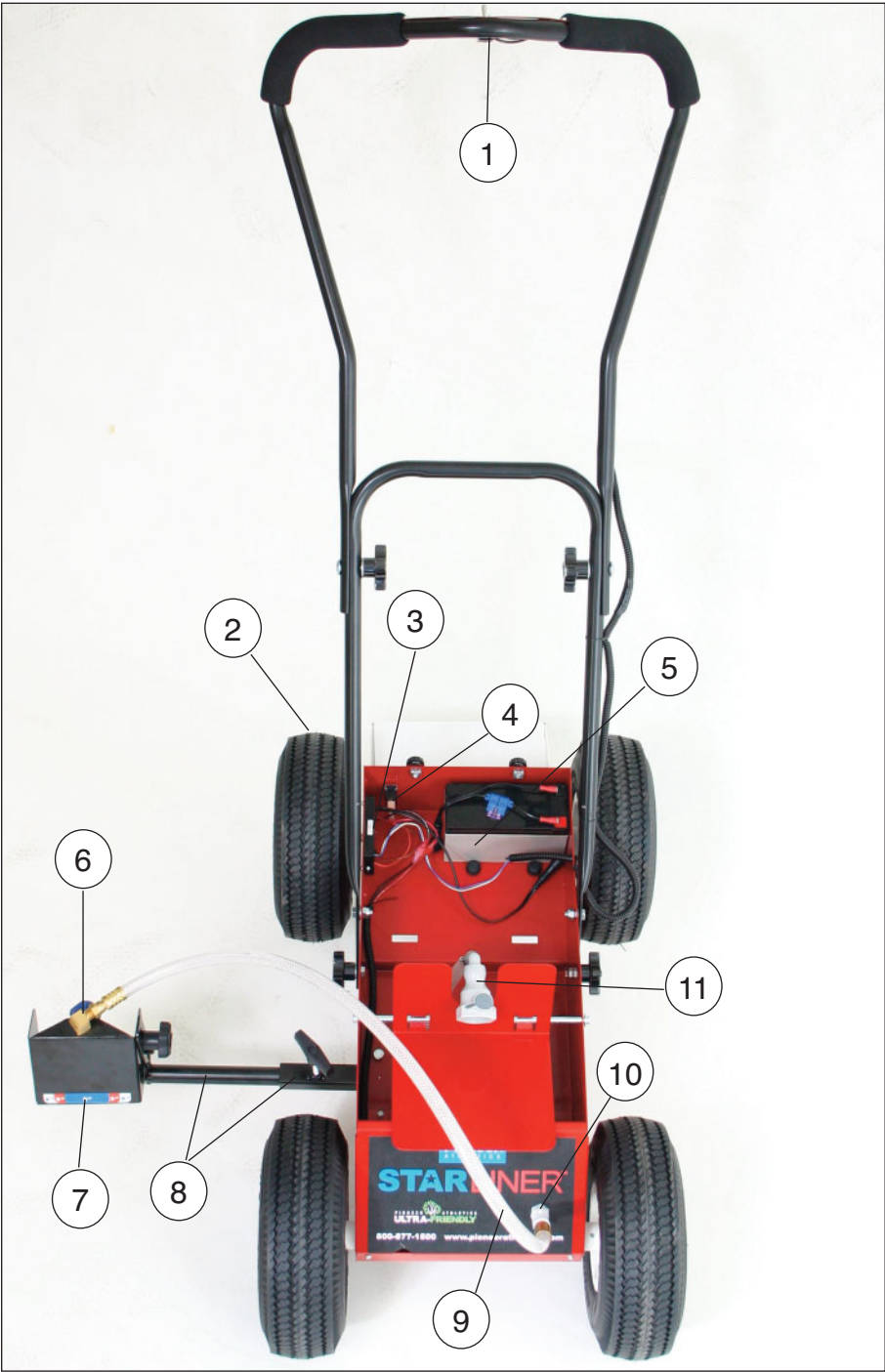
## SPRAY TIPS

PART	TIP	DESCRIPTION
0134	5003	3" to 4-1/2" wide line
1574	6503	4" to 6" wide line
1577	6504	4" to 6" wide line (heavier application of paint)
1576	8003	5" to 7" wide line

## Optional Spray Wand Assembly (Item 1033)



# PARTS LIST - STARLINER (Model V-5)





## Cleanout of the StarLiner

The StarLiner is shipped with a clean-out hose, an empty water bottle, and a quart of PHD Ultra-Friendly cleaner. Use the empty water bottle to combine water and a few ounces of PHD Ultra-Friendly to make the cleanout solution.

Once you are finished striping, it is recommended that you flush the StarLiner free of paint. Failure to do so may cause damage to your StarLine.

**IMPORTANT: DO NOT EXPOSE THE COMPONENT BOX TO WATER. DO NOT HOSE DOWN THIS MACHINE, AS IT IS ELECTRICAL AND MAY CAUSE PERMANENT DAMAGE.**

Insert the clean-out hose into the StarLiner connect. You will hear an audible click when connected properly. Place the hose into the bottle of cleaning solution and turn the StarLiner “On” and “Off” several times. This will help get all of the loose paint out. When the solution comes out clear from the tip, the hoses are properly cleaned. Remove and clean the spray nozzle tip and screen. Finally, clean the hose connections for the StarLine paint box and StarLiner.

**Caution: Do not use wire or any other rigid object to clean nozzle tip as this may cause tip orifice to become enlarged. This will result in poor performance of spray qualities.**



## **Striping Tips**

- When striping, it is recommended to have the StarLiner in motion before turning it on. This will eliminate the possibility of having a large “blob” of paint on the grass at the beginning of your line.
- Always test in an off area to be sure you are familiar with all functions of the StarLiner.
- For a sharp cut off, place a piece of cardboard at the end of the line.
- Clean or replace the nozzle tip and screen after every use.
- Do not run your pump dry. This will greatly add wear and tear to your pump and shorten its life.
- When transporting the StarLiner in a vehicle, disconnect the StarLine paint box and battery. This will help you avoid accidental paint discharge.
- When folding the handle, be cautious to not pinch any wires.

## **How to Store**

1. Flush the StarLiner thoroughly.
2. Clean off all loose paint.
3. Remove hoses and dry completely.
4. Store StarLiner in a heated building if possible.
5. Remove the battery and charge once a month when not in use.

## Troubleshooting

### If the StarLiner will not start:

- Make sure the battery is charged.
- Check the fuse.
- Make sure the tip is not clogged.

### The spray pattern is too narrow or wide:

- Adjust nozzle assembly up or down.
- Re-shake the paint box to be sure it is properly mixed.
- Replace screen or nozzle, it may have become clogged or worn beyond use.

## Battery

- With a fully charged battery:
- Place voltmeter probes on battery terminals – red probe to positive terminal, black probe to negative terminal.
- Reading should be 12v to 13v.
- If volts drop at rapid rate, the battery is no longer good.
- If the reading does not drop below 12v, the battery is still good.

## Battery Charger

The light of a charger plugged into an outlet, but not connected to the battery appears green. When the charger is first connected to the battery, the light should change from green to red. It will remain red while the battery charges, and will turn green when the battery is fully charged. If the light is not present after you plug it in, the charger is defective. The charger continues to charge the battery after the light turns to green. Do not leave the charger plugged in for long periods of inactive use.

## Handle Switch

The wires on the side of the handle sometimes get caught when the handle is not carefully folded. Be sure to check the wires for damage. The wires must not be exposed or cut in half. If the wires show signs of damage, they will need to be cut and reattached. To check the switch, disconnect the battery and flip the switch to the off position. Check for continuity by sticking probes into the back crimps on the blue wire and white wire. The meter should read zero. With the probes in the same location, toggle the switch to the “on” position. If continuity is present, the switch is good.

## High/Low Switch

The only issue is if the battery comes loose and slides over, hitting and breaking the switch.

## Fuse

There are several ways the fuse can blow, including:

- The wires are attached in reverse. This means that the fuse wire is attached to the black terminal on the battery.
- An overheated or seized pump.
- Damaged or cut wires touching the positive to the negative.
- A faulty circuit board.

## Pump

- Problems with the pump may be caused by:
- The pressure switch screw on the pump is not turned all the way in.
- Clogging from poorly shaken, expired, or frozen paint.
- Overheating and seizing.

## Circuit Board

**Caution: Prior to testing or replacing the circuit board, it's important to first rule out any other potential problems or issues.**

To check for a burned-out or defective circuit board, perform a visual check, looking for burnt or damaged wires. If this does not produce an answer, you will need a voltmeter to properly test the circuit board.

- With a fully charged battery, connect the voltmeter to the harnesses between the circuit board and pump. Place the red probe on the red wire and black probe to the black wire.
- When the battery is disconnected, the reading should be 0.0v.
- When the battery is connected and the toggle switch is in the "Off" position, the reading should be between 5.3v and 5.9v. If the reading is 0.0v, the circuit board or the wiring between the battery and circuit board may be defective.
- If the toggle switch is in the "On" position, the reading should be between 12v and 13v.
- The High/Low switch should not affect any readings.

## **LIMITED WARRANTY**

For a period of six months from date of purchase, PIONEER MANUFACTURING COMPANY will replace for the original PURCHASERS, any part or parts\* of the Star-Liner, found upon examination by a PIONEER FACTORY-trained representative, to be defective in material or workmanship or both; this is the exclusive remedy. This warranty is pro-rated as to cover 100% of the cost of materials, parts and labor for the first six months. The customer is responsible for all remaining costs. The customer may elect to return the entire unit to the factory at his expense for repair. Or he may, at his expense, return the defective part for factory inspection AND replacement. In no case will PIONEER MANUFACTURING authorize outside repair on any unit nor will PIONEER MANUFACTURING reimburse any customer for unauthorized work. Prior to returning any part or machine, the CUSTOMER must obtain a RETURN MATERIAL AUTHORIZATION CODE. Call toll free 800-877-1500. This warranty gives the customer specific legal rights as well as other rights which may vary by state. There are no WARRANTIES which extend beyond the face hereof and the warranties set forth above are in lieu of all other warranties, EXPRESS or implied, including any and all implied warranties of merchantability or fitness for a particular purpose, and any other obligation or liability on the part of PIONEER.

PIONEER SHALL IN NO EVENT BE RESPONSIBLE OR LIABLE TO THE OWNER OR ANY THIRD PARTY FOR INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES WHETHER ARISING FROM DEFICIENCIES IN THE DESIGN, MANUFACTURE, LABELING OR OPERATION OF THE STARLINER OR FROM ANY OTHER CAUSE WHATSOEVER AND WHETHER BASED ON TORT, CONTRACT, WARRANTY, STRICT LIABILITY OR OTHERWISE. IN ANY EVENT, PIONEER MANUFACTURING COMPANY INC.'S RESPONSIBILITY IS LIMITED TO THE COST OF THE PRODUCT ITSELF.

No representative employee, agent of Pioneer, or any other person has any authority to assume for Pioneer any additional or other liability or responsibility, other than as described above, in connection with the STARLINER. Either direct or indirect acceptance of this limited warranty constitutes approval of, and agreement with, all of its terms and conditions by the owner. This limited warranty becomes effective only when all invoices for the STARLINER have been paid in full.

\* The battery, battery charger and pump are covered exclusively by the manufacturer's warranty.

**CALL OUR CUSTOMER SERVICE REPS  
FROM 8:00am - 4:30pm (EST) 800-877-1500**

With any questions you may have concerning the care, assembly, operation, or maintenance of this product. Before you call be sure that unsatisfactory operation is not due to inadequate care or cleaning, abuse, or neglect. This may save you time and money. See our warranty for specific coverage.

**IF YOU SHIP THE PRODUCT  
*PRIOR AUTHORIZATION MUST BE RECEIVED BEFORE RETURN***

Carefully pack unit and send it prepaid and adequately insured. Attach a postage-affixed letter, detailing the complaint, to the outside of the carton. **BE SURE TO SHOW RETURN AUTHORIZATION CODE NUMBER ON OUTSIDE OF ENVELOPE.**

Warranty will not cover repair where normal use has exhausted the life of the part. Line strippers, like all mechanical devices, need periodic parts replacement and service to perform well. It should be remembered that the service life of any equipment is dependent upon the care it receives and the conditions under which it has been operated.

**FOR REPAIRS INCLUDING WARRANTY REPAIRS:**

Call 800-877-1500 for repair cost estimates, and full service information. **INCLUDE RETURN AUTHORIZATION CODE NUMBER BEFORE SENDING YOUR UNIT.**

**SEND YOUR UNIT WITH FREIGHT PREPAID TO:**

**PIONEER ATHLETICS  
4529 Industrial Parkway  
Cleveland, Ohio 44135**



# ATHLETIC FIELD MARKING PAINT

Featuring "Plug & Stripe" Technology



## Features:

- Ready-to-use paint comes in a self-sealing container. Just "Plug paint container into paint line and "Stripe" away
- Brilliant white lines featuring Pioneer's Halogen® 2000 Optical Brighteners
- Stackable container size makes for easy storage and striping
- Each container is designed to do one regulation soccer field
- Also available in yellow, orange, red and blue



## Coverage (undiluted):

up to 2000 linear feet of four inch line

## Packaging:

2.5 Gallon Carton

## Applications:

Football & Soccer Fields • Walkways • Campsites • Band Practice Areas  
Tracks • Golf Courses • Volleyball Courts • Baseball Fields • Bicycle Paths  
Grass & Clay Tennis Courts • Grass Parking Areas • Any grass or paved areas

**P: 800-877-1500**

**F: 800-877-1511**

**[www.pioneerathletics.com](http://www.pioneerathletics.com)**

**Pioneer**  
ATHLETICS

**4529 Industrial Parkway  
Cleveland, OH 44135**