

# Advant-Edge Paving Equipment LLC

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## Advant-Edger Universal Model Manual



### 1.0 Purpose of the Advant-Edge Equipment LLC Advant-Edger – Universal Model

The Advant-Edger is used as a paver attachment tool to help construct a highly consolidated, longer lasting, low angle wedge fillet on the outside edge of the paved mat. Through a single simple adjustment, the Advant-Edger can help a paving crew construct a tapered safety edge fillet.

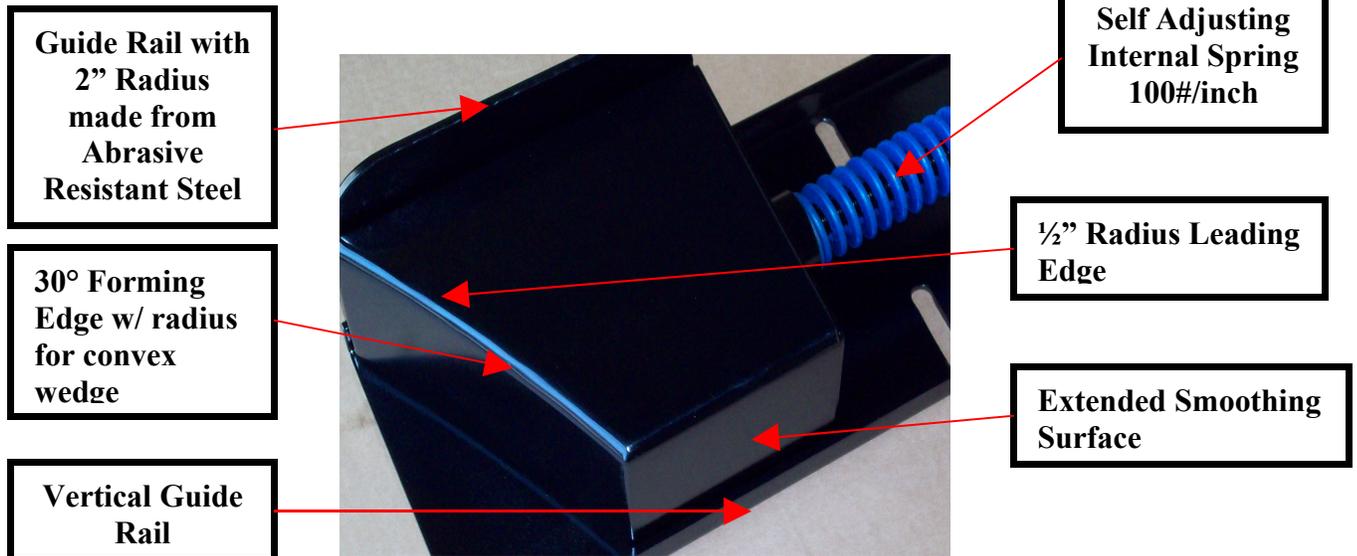
It is designed primarily to construct a consolidated, tapered mat edge with a final angle after rolling of the lane mat of approximately 30° to the horizontal. The Advant-Edger Universal model can be used on both the right and left side of the paving machine. The purpose of providing both left and right operation in one device is to facilitate creating the lane edge wedge fillet whether paving in the direction of traffic or paving against the traffic pattern. Thus only one unit is required to do both functions. While paving, the Advant-Edger is adjusted to keep the bottom edge of the device in contact with the road shoulder surface in order to prevent asphalt leakage under the wedge, thus producing a well defined wedge fillet.

The following instructions explain the basic installation and adjustments needed to use the Advant-Edger to construct a consolidated angled road edge fillet.

### Caution:

**HEAVY!**  
**To Avoid Injury,**  
**Use Care When Lifting and Installing.**

## 2.0 Explanation of Key Parts

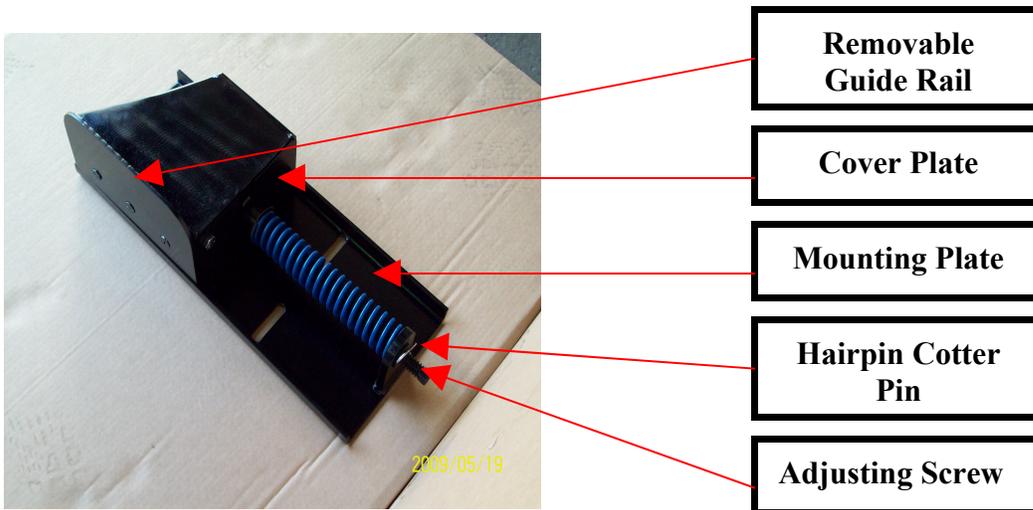


The Guide Rail allows the Advant-Edger to ride along the surface of the road shoulder following its topography. The 2" radius helps the transition when the device encounters an obstacle such as a driveway cut or road intersection. This component is easily removable so the forming box portion of the device can be rotated 180° and then reattached and mounted on the other side of the paver for left or right hand operation in a single unit.

The 30° Forming Edge is the feature that actually produces the wedge fillet. When adjusted properly, the Advant-Edger extends below the screed strike-off plate and extrudes the fillet at the specified angle. It has a concave radius surface resulting in the wedge fillet being convex in shape to better facilitate vehicle recovery from road departure.

The ½" Radius Leading Edge provides a smooth transition for the asphalt being extruded under the Advant-Edger.

The extended smoothing surface acts as a trowel, smoothing the asphalt as it leaves the device producing a finished consolidated edge feature on the road mat.



The Cover Plate protects the inner adjustment elements from dirt and asphalt.

The Vertical Guide Rail confines the Edger so that when adjusting road width with the paving end gate, the device will not pull away from the end gate surface thus preventing asphalt from building up behind the device. Note this feature is on both right and left sides of the mounting plate allowing reversal of the unit for use on both sides of the paving machine.

When the Advant-Edger is not needed during paving or for cleaning, it can be easily detached from the mounting plate by removing the hairpin cotter pin.

Finally the adjusting screw sets the height of the Advant-Edger and when properly adjusted compresses the internal spring to supply a downward force keeping the device in contact with the shoulder surface.

### 3.0 Instructions for Installation of the Advant-Edger

**Notes: Installation requires mounting holes on the screed extensions.  
Mounting hardware has been included.**

### 3.1 Tools Required

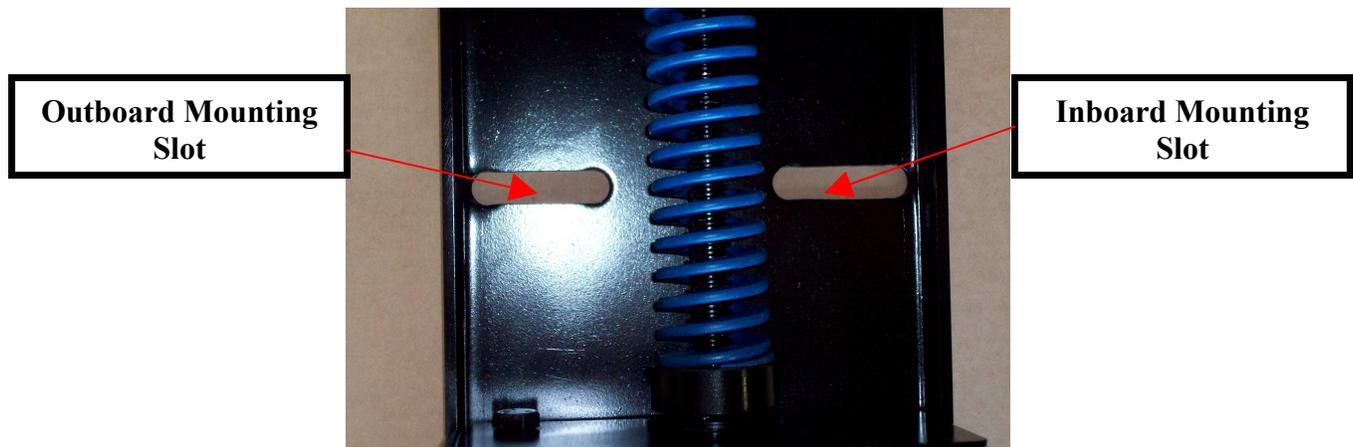
Drill, Drill Bits, Tap, Socket Set, Allen Wrench and in some installations it may be necessary to have a cutting torch and welding capability.

### 3.2 Mounting Hole Preparation

The Advant-Edger can be installed on the hydraulic screed extension and/or on one foot and two foot wide bolt-on screed extensions on either right or left side of the paving machine..

**Two holes are needed for mounting the Advant-Edger.**

There are two slots on the Advant-Edger mounting plate. The first is the "**Inboard Mounting Slot**" and the second is the "**Outboard Mounting Slot**."



- Inboard Mount Slot is located approximately 6” in from the outboard edge of the Advant-Edger (The outboard edge is the one closest to the “End Gate”) and is shown on the photo above.
- Outboard Mount Slot is located along the outboard edge of the Advant-Edger again closest to the “End Gate” and also shown in the photo above.

#### **Approximate Mounting Hole Locations:**

- The location for the **inboard mounting hole** is approximately 16 inches above the bottom of the screed plate and approximately 6 inches in from the end gate side of the screed extension.
- The location for the **outboard mounting hole** is approximately 16 inches above the bottom of the screed plate and approximately 1 inch in from the end gate side of the screed extension.

The easiest way to set up for drilling the mounting holes in the screed face is, with the screed lowered to the ground, set the Advant-Edger mounting plate or entire device on a 1” thick shim with the device against the end gate. Mark the location of the mounting slots on the screed face. Drill and tap each hole for a ½-13 UNC bolt. An alternative in case the metal in the mounting areas is too thin to tap satisfactorily is to drill clearance holes for a ½” bolt and weld a nut on the back of the hole.

### 3.3 Installation of the Advant-Edger

- Remove the mounting plate from the Advant-Edger assembly by removing the hairpin cotter pin and sliding the plate over the adjusting screw.
- Position the Advant-Edger mounting plate over the mounting holes and against the end gate.
- Insert a bolt and washer into each of the mounting slots and tighten.
- Position the Advant-Edger assembly under the mounting plate support bracket.
- Lift the assembly inserting the adjusting screw through the hole in the support bracket.
- Insert the hairpin cotter pin into the hole in the adjusting screw.
- Turn the adjusting screw clockwise until the lower section of the Advant-Edger is even with or above the bottom of the screed strike off.

The Advant-Edger is now mounted!!!

To reverse location from left to right side or right to left, simply remove the guide rail, rotate the forming box 180° and reinstall the guide rail so the 2” radius is pointing forward.

#### **Note:**

**Prior to setting the position of the paving screed and lowering for paving, the Advant-Edger should be left in its uppermost position to insure that the device does not get damaged while adjustments to the paver are completed.**

**"End of Installation Section of Manual"**

## "Using the Advant-Edger"

### 4.0 Instructions for the adjustment of the Advant-Edger during paving

#### 4.1 Positioning the Advant-Edger

Once the paving operation begins, and full mat depth has been reached, the Advant-Edger should be adjusted to create the wedge fillet to the full depth of the mat. This is accomplished by lowering the device to the full mat depth below the screed.

#### 4.2 Adjusting the depth of the Advant-Edger

Rotate the Advant-Edger Adjusting Screw counterclockwise. This will extend the wedge assembly downward below the screed strike off plate. Continue extending until the guide rail reaches the roadbed surface. Two ways of recognizing when this is accomplished are as follows.

1. Looking behind the paver one should see the road edge at a 30° angle to the horizontal with a clean edge at the shoulder surface.
2. As the adjusting screw is rotated note that the hairpin cotter pin will rise above the surface of the mounting bracket.

#### 4.3 Adjusting the downward pressure on the Advant-Edger

Once contact is made with the shoulder roadbed, continue to extend the wedge assembly until the cotter pin is “floating” approximately 1 to 1½ inch above the surface of the mounting bracket. This will insure a downward pressure exerted by the internal spring to keep the device in contact with the shoulder surface.

### 5.0 Guidance on Using the Advant-Edger

#### 5.1 Mat or Lane Width

It is important to know that the Advant-Edger decreases the width of the lane by up to 6”, depending on the thickness of mat being laid. This decreased width needs to be added back in by extending the end gate the appropriate amount.

#### 5.2 Rolling Patterns

It is recommended that the first rolling pass on the freshly laid mat be made with the roller drum away from the outside edge of the lane by about 8 – 12 inches. This will insure that the shoulder wedge fillet will not “roll up” due to outward pressure from the first pass. The roller should be driven straight up to the back of the paver and back without turning the roller. If possible, this should be done in vibratory mode.

**DO NOT ROLL THE TAPER.** Attempting to roll the taper can result in damaging or destroying the area. It is not necessary to roll the fillet as the Advant-Edger consolidates the asphalt during extrusion from the paver.

**Warning!** During paving, the Advant-Edger could be exposed to contact with the crossfeed auger and auger shaft if the hydraulic screed extension is drawn in too close to the main screed. Severe damage could occur to both the crossfeed auger and the Advant-Edger if they come in contact.

**Warning!** When paving is completed in a given direction and the paver is to be moved to a new position, the Advant-Edger should be retracted to its mounting height or uppermost position. This will insure that the device does not hang below the screed and come in contact with road features that may damage it.

### 5.3 Keeping the End Gate in Proper Position

**In order for the Advant-Edger to work properly, the paver end gate ski must be kept riding directly on the surface being paved.** Most end gates have a tension rod, or compression spring, mechanism which can be adjusted to keep enough downward pressure on the ski so that it does not lift up during paving. If the end gate lifts off the shoulder for any reason, asphalt may flow out the side of the paver and not provide enough asphalt to the Advant-Edger to achieve proper consolidation to construct a high quality tapered edge.

**For assistance during installation and usage of the Advant-Edger, call Advant-Edge Paving Equipment LLC at 1-518-280-6090 for Customer Support.**