Operating Manual

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Critical notice– Keep the screed clean! Like your hand trowel the finishing surface on the TrailRider® must be clean to provide a satisfactory finish. The screed surface should have a glossy feel before use. We recommend using a hot pressure washer during clean up and power grinders with appropriate abrasive wheel to polish the screed where it comes in contact with the concrete. Vegetable oil form releases are also a good idea on all surfaces that exposed to fresh concrete. Be very careful not to put oil on walking surface without taking precautions against slipping.

Pour a sample panel for the customer before starting your project. Verify the depth, width, and appearance to make sure the owner accepts the finished look of the pavement. If it is pervious concrete make sure the mix design offers a satisfactory permeability after being slipformed. If not, adjust the mix until it meets the specified drainage rate. Evolution Paving Resources will work with your concrete supplier to create a workable mix.

Achieving desired paving width. Depending on how the edges are finished the width of the finished trail will vary. If you use fiber reinforcing and pour with correct moisture the trail will be close to the width of the screed. Typically the edges will lose a few inches on each side due to tapering and edging. Adding the four inch screed section gives extra material to work with. In curves the loss of width will be more pronounced. *Adjustable* width side molds are optional if you need fine width adjustments.

Measure pavement width in corners. Use 1 x board to straighten and fill edges to specified dimension.

Paving. Connect the paver to the towing vehicle make sure you read and follow safety precautions. Pull the paver a few inches to make sure it is connected correctly and pulling straight. Position the tow vehicle and talk with the driver before connecting. They must be aware that their actions will directly affect the direction of the pavement and the safety of your crew. Make sure they follow the guide man on the paver. Drivers should use the axle interlock for traction and the lowest gears for power. When directed pull with a slow and steady speed. Varying the sped may result in extra work for the finishing crew. **In corners** measure to verify the width regularly. We suggest having a 1 x 4" or 1 x 6" board on each side of the pour to use as temporary forms on the inside of the curve. Fill the gap with pervious material and hand float (photo). Make sure to compact all pervious edges if manually installed.

Unwanted curves. Path not straight? Use the 1 x lumber as a straight edge. Simply hold the board next to the edge and kick the board in crooked area until the edge looks right. If the problem is too big to fix with a straight edge use a shovel, skid steer, loader or what ever it takes. You may need to dig out one side and fill on the other. Add fresh material from the paving hopper if needed. DO NOT DELAY. Recommendation: If you know something is wrong fix or replace it while fresh material in the truck is still nearby. All manual manipulation of pervious concrete must be completed immediately after placement of the concrete. Delaying repair work for more than a few minutes may result in loss in moisture and increase raveling.

Compaction of pervious concrete. The **TrailRider™** places and compacts pervious concrete ½" as required by pervious concrete specifications. This machine will automatically add this compaction unless you set the front adjustment pins lower than the back. DO NOT set front pins lower than rear pins. It is acceptable to set the front pins *higher* for added compaction but never lower. An indication of an improper setup will be surface tearing and a "less finished" look. There should never be a gap between the back of the screed and the fresh concrete. If this occurs, check that front and rear elevation adjustments are set correctly. Note there are other causes of this condition-see ***Troubleshooting***.

All rules of pervious concrete installation apply. **Wet the sub-base** before placement. **The mix should be as specified** (wet metallic sheen with thick coating of paste– look for paste lines in chute and hand float). **Jointing**. Pervious concrete will shrink ½" (or more) per hundred feet so install joints to prevent shrinkage cracks. We encourage installers joint every 15' 20 maximum and to "wet cut" joints at least every 60 feet with a deep groover even if you are plan to saw the remaining joints. If specifications call for sawn joints DO NOT WAIT TOO LONG. Cut as soon as possible without raveling. This may be as little as a few hours. **Curing** is also critical for concrete –especially pervious concrete. Make sure to cure with sheet plastic in 20 minutes or less on an overcast cool day. On warm or windy/dry days cure in 10 minutes. In severe dry, windy or hot weather suspend the pour until conditions improve. Night work may be required. **Anchor the plastic securely**-without using dirt or fine material to hold the plastic in the wind.

Cold Joints. If there are delays in placement empty the paver pulling it past the previously placed trail. Square off and edge the end of the path. When the pour restarts fill the hopper and pull the paver ahead to fill the screed leaving a short gap. Stop and manually fill the gap using care to protect the fresh edge of the first pour. Use your 1 x lumber to form the edges. Make sure to compact the manually installed area. Then you resume the pour.

Use of hand tools. Some surface floating, edging and jointing will improve the final appearance. Do not hand float unless absolutely necessary. Weighted bull floats or Fresno tools work best. Wider tools are NOT better. Use of tools must be completed within a few minutes of placement. Stop manual floating if it closes the surface or reduces the permeability beyond specified limits.

The installer (not Evolution Paving Resources) is responsible for owner acceptance of permeability (if pervious) and final finish or appearance of the pavement. The installer must follow all job specifications related to materials and installation. If the paving machine fails to provide specified results the installer must discontinue use of the paver and correct the deficiency at no cost to Evolution Paving Resources or the owner. This is why we strongly advice you pave a sample and get the owners written approval of the appearance and permeability (if pervious) before starting the job.

Troubleshooting . If the pavement surface comes out of the screed torn, rough or ragged, there are several typical causes: 1. The screed plate is not clean. 2. The box is nearly empty. A full hopper improves the extrusion process and results in smoother surface behind the paver. 3. If the box gets dropped or is damaged and the screed becomes warped it will affect the ability of the paver to provide an even finish or correct surface texture. Check the paver on level ground to ensure it is not bent or warped. 4. Make sure the front depth adjustment pins are set at or above the rear pins.