

INSTALLATION MANUAL LITTATRAP™ EMMA (EASY MAINTENANCE MANHOLE ACCESS)





WARNING

It is essential to follow any local or national Occupational Health and Safety Laws when installing or maintaining LittaTrap™ filters. Ensure all required Personal Protection Equipment (PPE) is worn at all times and Traffic Management rules are adhered to.

When maintaining the LittaTrap™ follow all local or national guidelines for manual lifting whenever hand maintenance is actioned.



SITE SAFETY

We recommend checking your local website for a Site Specific Safety Plan before undertaking any installation.



HEALTH AND SAFETY

Please follow all safety protocols for your area. If in the USA, please follow all OSHA guidelines for safe installation per your site.

Personal Protection Equipment (PPE) is required when installing or maintaining a LittaTrap™. Recommended PPE: safety glasses, hearing protection, dust mask, gloves, Hi-vis clothing, safety toe shoes or boots, long pants, shirt with sleeves, and hard hat or head protection such as a bump cap.

We also recommend the use of gloves when maintaining the LittaTrap™.

When maintaining the LittaTrap™ by hand it is essential to identify and assess the weight of the captured material before lifting, as weights can vary depending on the filter contents.

For additional advice on the relevant Health and Safety requirements we recommend that you consult your local website.



MAINTENANCE

All treatment devices require maintenance to remove trapped contaminants and prevent overflow bypass or flooding. Due to the variable nature of stormwater pollution and localised site pollutant loadings, maintenance frequencies vary for different sites and different rainfall characteristics. It is recommended to inspect your LittaTrap™ frequently over the first year of operation to determine seasonal and annual maintenance requirements.

The LittaTrap™ filter should be maintained when it is approximately 2/3 filled with pollutants or if the filter fabric becomes blocked from hydrocarbons, organics or sediment.

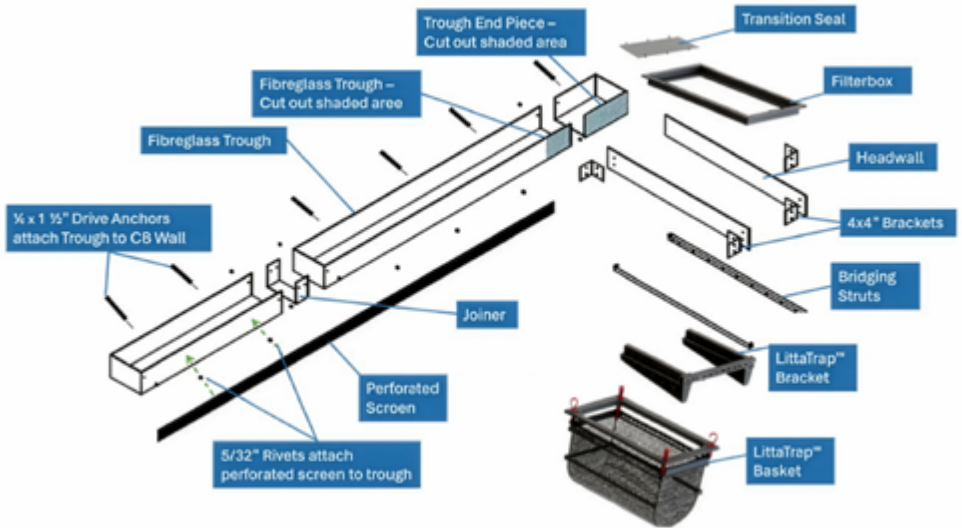
Maintenance is carried out by lifting the filter insert out of the frame assembly using 'J' hooks and emptying into a suitable vessel or trailer to be taken away from the site and disposed of appropriately for the contaminants. Please ensure that all care is taken when disposing of litter as the rubbish caught could contain sharp and dangerous objects.

If there are no "J" hooks the bag can be lifted out by the pulling the Filterbag handles. If the filter fabric is clogged, it should be water blasted into a contained vessel prior being fitted back into the frame assembly.

When carrying out maintenance of the LittaTrap™, it is essential to inspect the overflow bypass slots at the top of the filter insert to ensure no pollutants have been caught and may restrict the flow.

If the LittaTrap™ insert is too heavy to lift by hand, it will need to be maintained using a vacuum inductor truck. When cleaning using a vacuum inductor truck it is essential to take care to not damage the bag from the induction boom. Sediment and pollutants should be vacuum inducted until approx 3/4 empty, and then the remainder lifted and emptied by hand.

SUPPLIED COMPONENTS



TOOLS REQUIRED FOR INSTALLATION:

- Razor knife
- Tape measure
- Marker
- Rotary hammer drill (for masonry)
- Impact drill
- Grinder with cutoff wheel
- Deep socket sizes (3/8", 1/2")
- Masonry drill size (1/4" x 6, 3/8" x 6)
- Hammer
- Level
- Masonry chisel
- Caulking gun
- Plumb bob
- Riveter/ Rivet gun



OVERVIEW



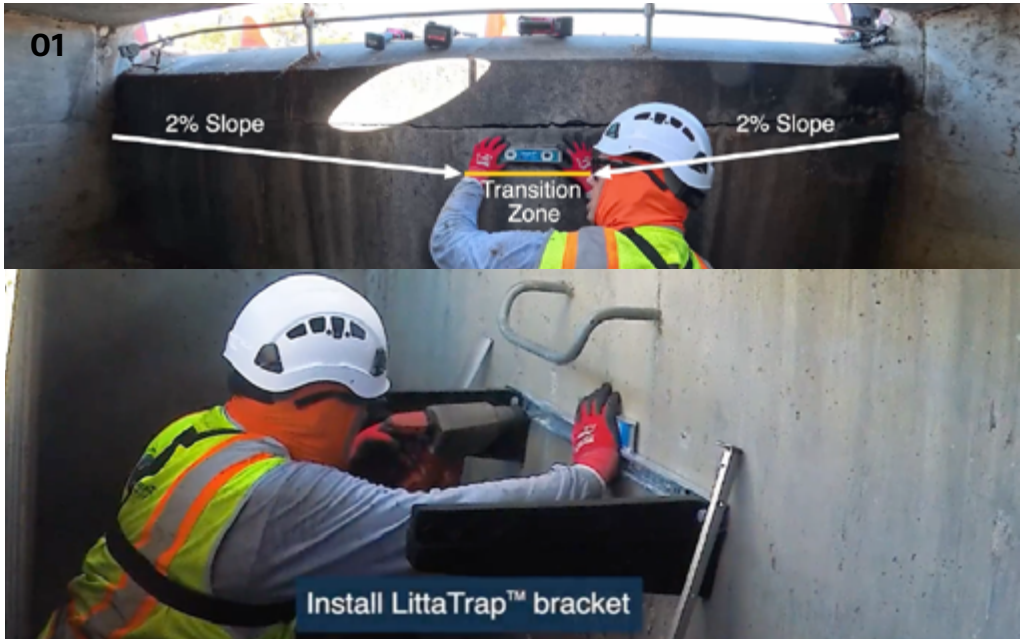
The LittaTrap™ EMMA trough design is intended to position the filter basket directly beneath the center of the catch basin manhole or manway access cover. The LittaTrap™ EMMA design uses a trough system to convey water from the entire catch basin to one or two access points for the catch basin. This design is specifically for ease of maintenance.

Keep in mind that the main principle is to have the water directed to one location using the gradual fall of the trough. The optimal fall for the LittaTrap™ EMMA trough can be represented as $\frac{1}{4}$ " per foot or a 2% slope. Variables do occur in the field occasionally. The slope or fall for the LittaTrap™ EMMA trough has an allowable difference $\frac{1}{8}$ "– $\frac{3}{8}$ " per foot of fall or 1%–3.1% slope. Again, the optimal designed fall is $\frac{1}{4}$ " per foot or 2% slope. If the CB is shallow, installation may vary, contact EnviroPod™ for more info.

Hardware and other components required for installation that are included:

- $\frac{1}{4}$ " Stainless steel rivets
- $\frac{1}{4} \times 1 \frac{1}{2}$ " drive pins
- $\frac{5}{32}$ " Stainless steel rivets for perforated screen only

INSTALLATION

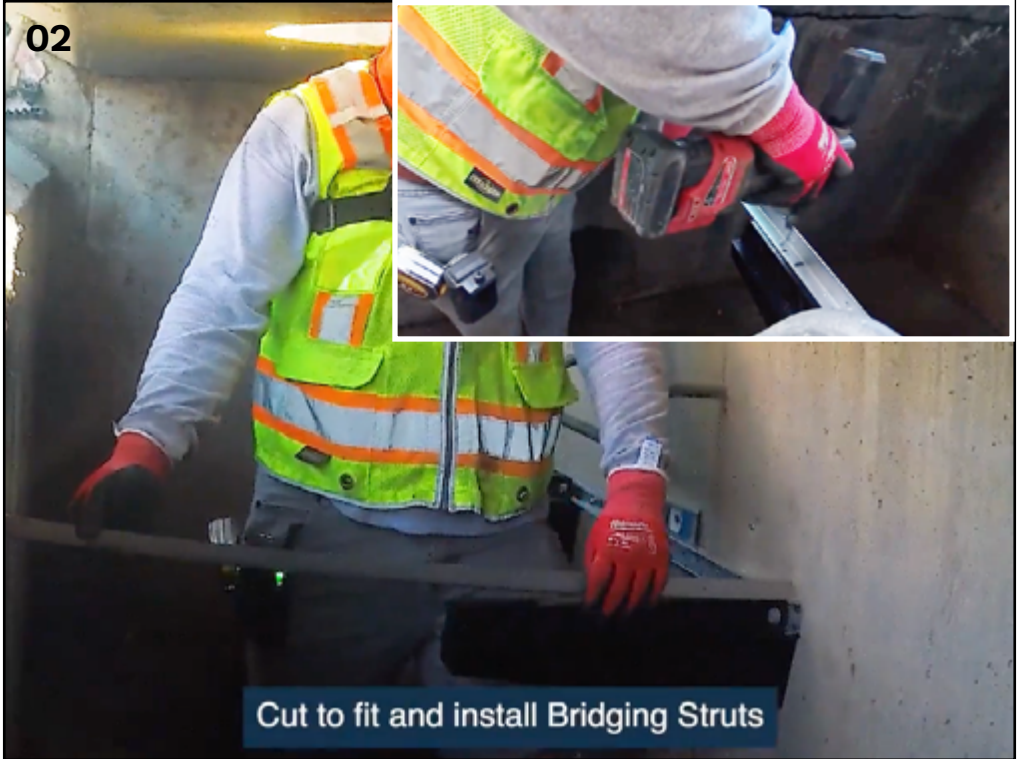


STEP 01 – INSTALLATION OF LITTATRAP™ FRAME

Measure for the 2% slope of the trough down to the transition zone. Across from the transition zone measure to install the LittaTrap™ Frame so the bridging struts will be at the right height. Use a plumb bob or similar tool to position the LittaTrap™ bracket directly in the middle of the manhole or manway. Obstruction may be present. If ladder rungs in the catch basin are present, you may be able to mount the LittaTrap bracket between the ladder rungs. Removal of obstructions may be necessary for optimal positioning during installation. Follow the instructions with your EnviroPod™ LittaTrap™ FC kit for installation. Ensure bracket is placed a minimum of 8" below the inlet throat opening. Depending on the configuration, the bracket arms may need to be brought closer together so the LT9060 Filterbox rests on the bridging strut along the long end. Separate instructions are available for that, please contact EnviroPod™ for more detail.

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STEP 02 – BRIDGING STRUT INSTALLATION

Install the bridging strut by placing it onto the bracket arm as shown in the photo above. Fix using rivets through pilot holes into the bracket arm and onto the opposite wall using drive pins supplied (top right photo). The bridging struts should be attached to the concrete wall so that the next trough will go over the top and rest directly on top at a slightly higher level than the LittaTrap™ Bracket.

INSTALLATION



STEP 03 – MEASURE AND CUT THE FIBERGLASS TROUGH

Measure the length of the fiberglass trough then cut the trough to size.



STEP 04 – CUT TRANSITION ZONE & PILOT HOLES

Measure the distance between the bridging struts and cut a rectangular section out of the final trough piece(s). The cut opening should line up with the bridging struts when placed on top.

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Use sealant to cover gaps more than 5mm in trough or transition section

Install Fiberglass Troughs

STEP 05 – INSTALL FIBERGLASS TROUGH

The end cap should be attached to the length of trough using $\frac{1}{4}$ by $1\frac{1}{2}$ drive pins. Attach the trough to the concrete wall. The trough system should be installed 3" below flowline at a 2% slope towards the manhole to account for flow. Install into the concrete using the $\frac{1}{4}$ " drive pins and using $\frac{1}{4}$ " rivets on the opposite side.



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STEP 06 – JOINING SECTIONS (ONLY IF REQUIRED)

When attaching multiple trough sections, first attach a joiner to the section already affixed to the wall. Slide another trough section into place on the joiner and attach to the wall using pins. Continue attaching joiners and trough sections until the final section to be added is directly across from the manhole.

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STEP 07 – INSTALL PERFORATED SCREEN

Using the 5/32" rivets provided to attach the Perforated Screen to the trough. The screen should extend the back wall of the trough by 2" as shown below. For winged inlet configurations, the screen should be bent 90° to follow the shape of the trough and allow for the attachment of the screen. The screen can be cut to size using an angle grinder.

08



Secure Trough slope to Transition Zone

STEP 08 – SECURE TROUGH TO TRANSITION ZONE

Using the Tek screws, cut and install the extension seal across the transition area between the trough and the LittaTrap™ Filterbox. You can use the cutout section of the fiberglass trough to help span the gap as shown below. Transition section between the trough and Filterbox spanned with LittaTrap™ seal and the cut out section of the trough.

STEP 09 – RTV SILICONE ALL JOINTS AND GAPS GREATER THAN 5MM.

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STEP 10 – INSTALL FILTERBOX

Install Filterbox on the LittaTrap bracket arms using the rivets so that the Filterbox is directly under the manhole opening. If there are ladder rungs or other obstructions in the catch basin, make sure there is space for the basket to be removed when full.

Filterbox is attached to bridging struts and bracket arms with Tek screws. Basket is placed in Filterbox early to confirm easy removal even when full.

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STEP 11 – ATTACHING HEADWALLS AND 4X4 BRACKETS

Screw the headwalls into the 4" x 4" brackets using the Tek screws. Then, attach the 4" x 4" brackets to the concrete wall of the catch basin and the trough as shown in the images below.

INSTALLATION



STEP 12 – INSTALL TRANSITION SEAL & SEALS

Using the Tek screws, cut and install the extension seal across the transition area between the trough and the LittaTrap™ Filterbox. You can use the cutout section of the fiberglass trough to help span the gap as shown below.

Transition section between the trough and Filterbox spanned with LittaTrap™ seal and the cut out section of the trough.

STEP 13 – RTV SILICONE ALL JOINTS AND GAPS GREATER THAN 5MM

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STEP 14 – INSTALL FILTERBASKET

Insert the LittaTrap™ basket with any performance liners and oil absorbent LavaSorb™ boom as required per project.

LITTATRAP™ INSTALLATION CHECKLIST

Please complete each step with each installation of the EnviroPod™ LittaTrap™ products.

Each EnviroPod™ LittaTrap™ installation step must be completed in order to receive the 8 year warranty.

Installation Steps	Complete (Y/N)
1. The catch basin is clean and free of trash and debris and any protruding pipes are cut back flush with the catch basin walls.	
2. The support bracket is installed 200mm (8") below the top of the grate level or below curb entries.	
3. Anchor bolts securely tightened; bracket firmly against the catch basin wall.	
4. Filterbox positioned for easy basket removal; edges at least 25.4mm (1") from basin walls.	
5. Basket does not block outlet and is positioned where it can be maintained through the manhole without requiring entry into the catch basin.	
6. Seals securely fastened to Filterbox and bracket arms where applicable.	
7. Seals curve up basin walls with fall toward basket (refer to best practice image)..	
8. Basket and liner placed correctly; flaps passed through bypass slots and buckled below corner posts.	
9. Gaps >5mm (0.19") sealed with appropriate construction sealant.	
10. Trough is installed and affixed to catch basin as per installation guidelines, with no gaps; sealed with construction sealant as necessary.	
11. Basket positioned to allow water runoff from trough to basket without ponding.	
12. Troughs capture inflow from wing inlets (if applicable).	
13. Transition seal is firmly attached to trough and Filterbox without gaps or buckling.	
14. Photos taken of unit with basket in and out, as well as the trough and transition area; saved for records.	
15. Installation materials cleared; site left tidy.	
16. Manhole cover replaced.	