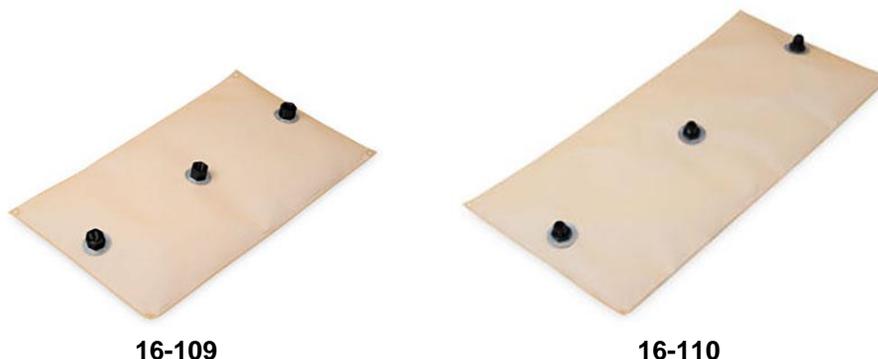


# Holley® HydraMat™

## Holley® HydraMats P/N 16-109 & 16-110



16-109

16-110

Part #	Description	Acceptable Tank Opening	Recommended Magnet Kit
16-109	15 x 24 center-side-side outlet – 1/2" NPT	4" x 6" and larger	16-203
16-110	14 x 30 center-side-side outlet – 10AN	6" x 10" and larger	16-203

**CAUTION! Do not use PTFE pipe tape or sealant paste! Loose particles will be drawn into the fuel pump and it will fail!**

### AVAILABLE KITS AND ADAPTERS for 16-109:

P/N	Description	P/N	Description
26-148	Fuel Bulkhead Kit	AT984088ERL	Straight 1/2" Hose Barb to 1/2" NPT Male
26-151	4 Wire Bulkhead Kit	AT984010ERL	Straight 5/8" Hose Barb to 1/2" NPT Male
26-152	2 Wire Bulkhead Kit	AT981608ERL	3/8 NPT Adapter Pipe Thread to AN -8
26-161	3/8 I.D. x 2' Submersible Rubber Hose	AT981610ERL	1/2 NPT Adapter Pipe Thread to AN -10
AT984008ERL	Straight 1/2" Hose Barb to 3/8 NPT Male	AT981666ERL	3/8 NPT to -6 AN Fuel Line Adapter
AT984066ERL	Straight 3/8" Hose Barb to 3/8 NPT Male	AT165206ERL	3/8 Hard Line to 3/8 NPT
AT984068ERL	Straight 3/8" Hose Barb to 1/2" NPT Male	AT165256ERL	5/16 Hard Line to 3/8 NPT

### AVAILABLE KITS AND ADAPTERS for 16-110:

Please refer to the Earl's catalog for 10AN fittings, adapters, and hoses.

### IMPORTANT NOTES:

#### FUEL COMPATIBILITY:

Works with all gasoline blends (Alcohol, Ethanol, Methanol, and E-85). Not for use with oils, diesel fuels, or any other fluids.

#### NO PRE-FILTER NEEDED!

All HydraMats are constructed with a 15 micron depth media, so no pre-filtration is required for the fuel pumps. **Use of an additional pre-filter could result in pump failure.**

## HYDRAMAT FILTER LIFE EXPECTANCY

The HydraMat filtration performance will provide 5-10 years or more depending on the fuel type, how clean your fuel system is, how much you drive your car, and how aggressively the car is used. Severe duty applications should inspect the filter at regular intervals to ensure the Hydramat is not restricted by debris. The Hydramat is not cleanable.

## HYDRAMAT CLEANING

The large majority of the debris is imbedded inside the depth media and cannot be removed. Surface cleaning is not practical or effective and should NOT be done. In extreme conditions (Racing or Off Road) check your HydraMat annually.

## CLICK BOND INSTRUCTIONS

Kit number 16-201 is intended for steel or aluminum fuel tanks.

Kit number 16-202 is intended for polypropylene or polyethylene fuel tanks.

Position the HydraMat on the floor of the fuel tank in the preferred location. Mark the tank surface thru the mounting holes in the HydraMat for the position of each stud. Follow the directions provided in the Click Bond kit for cleaning and adhesive application. Allow to dry for 24 hours. Unscrew the plastic frame and slide the HydraMat over each stud. Open kit bag and install the washer then tighten the nut to 7-10 IN. LBS.

## MAGNET INSTALLATION INSTRUCTIONS FOR STEEL TANKS

Assemble the washer on the stud and torque the nuts as follows:

- 16-203 kit (4-40 thread) 4-5 IN. LBS.
- 16-204 kit (6-32 thread) 7-10 IN. LBS.
- 16-205 (disk magnet) should be paired with 16-204 (stud magnet) for polypropylene and aluminum tanks when the Click Bond stud option is not selected.

**IMPORTANT! These edges may be very sharp, which could damage the HydraMat or injure the installer. Apply a Duct-type tape around the tank opening on sharp edges to prevent damage to the media if:**

- the opening is smaller than the width of the HydraMat in its free state or
- the folded/rolled HydraMat must be additionally pressed through the opening

Insert the HydraMat through the tank opening and position on the tank floor. The magnets can be pushed across the floor with a wooden dowel or plastic tool to make the HydraMat as flat as possible in the desired position for the suction hose alignment. **Be careful not to allow any portion of the HydraMat or suction hose to block or bind the motion of the fuel level sender float.**

## MAGNET INSTALLATION INSTRUCTIONS FOR POLYPROPYLENE OR POLYETHYLENE FUEL TANKS

Position the HydraMat as described above. Locate the disk magnets from kit number 16-205 on the outside surfaces opposite the internal magnets on the HydraMat. Position the magnets to make the HydraMat as flat as possible on the tank floor.

## **HYDRAMAT INSTALLATION:**

**NOTE:** The hose assembly is for reference only. This assembly is representative of a typical hose assembly if being installed using the center pick-up for a Road Course application with EFI or carburetion. This complete hose assembly can be purchased under Holley P/N LS0010ERL (includes bulkhead fittings, stat-o-seals, & feed and return hose). The side pick-up is intended for oval or circle track and the center pick-up is capped. If oval or circle track applications are being used with this HydraMat, 16-200 fuel line kit or equivalent must be purchased.

1. Lay the HydraMat out and attach an in-tank feed hose assembly on the center adapter (**Fig. 1**) and a cap on the side adapter (**Fig. 1 & 2**). Tighten the 10AN hose and cap to 360-430 in./lbs.



Figure 1



Figure 2

2. Drain fuel cell completely.
3. Remove the fill plate from the fuel cell. Remove foam.
4. Clean the bladder of any sediment or debris.
5. If your fuel cell has the single pickup in the right rear (passenger's side) corner, it is okay to leave this installed as it does not interfere with the HydraMat (**Fig. 3**).
6. However, if your fuel cell has a built-in surge tank (**Fig. 4**), it will need to be removed. If it cannot be removed, a new bladder without the surge tank will be required.

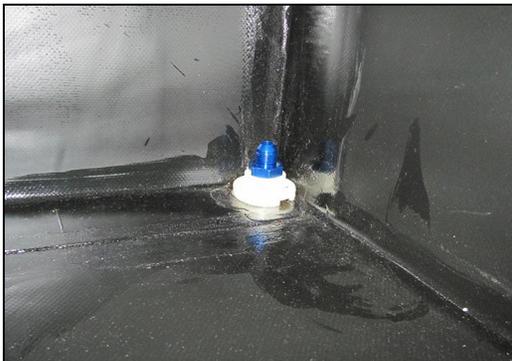


Figure 3



Figure 4

7. Install the HydraMat with the inlet side first toward the right rear (passenger's side). See **Figures 5-10**. Fold and feed into fuel cell toward the right rear (passenger's side) of vehicle. Make sure the blanket lays flat on the bottom of the fuel cell (**Fig. 11 & 12**).

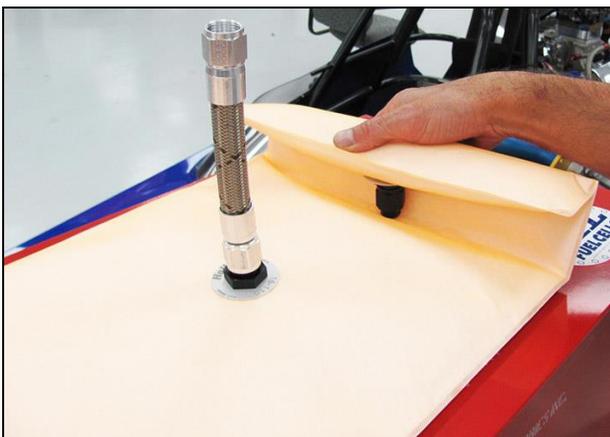


Figure 5

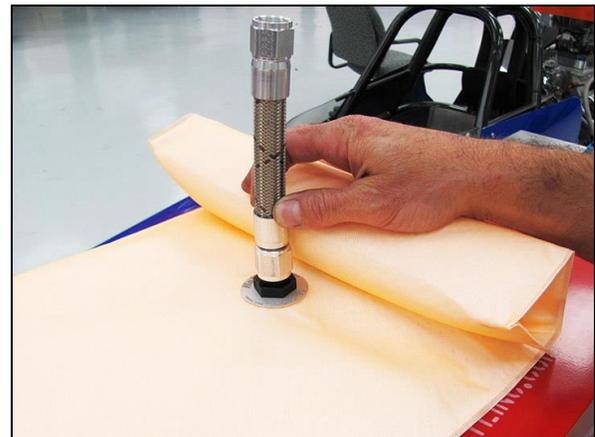


Figure 6

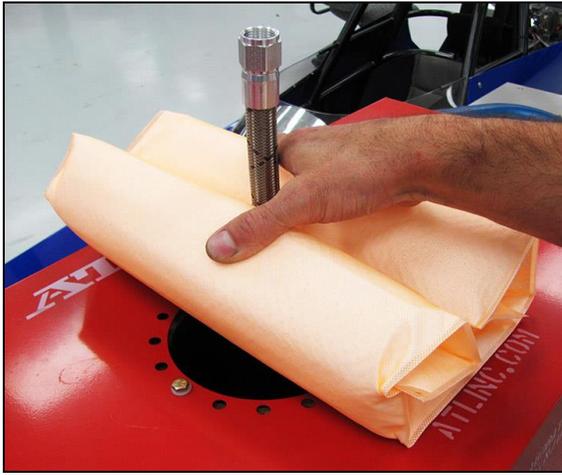


Figure 7

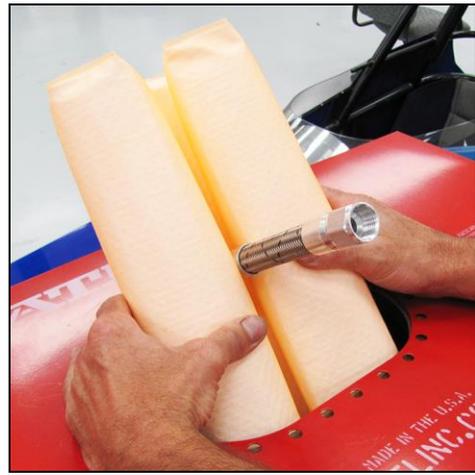


Figure 8



Figure 9



Figure 10

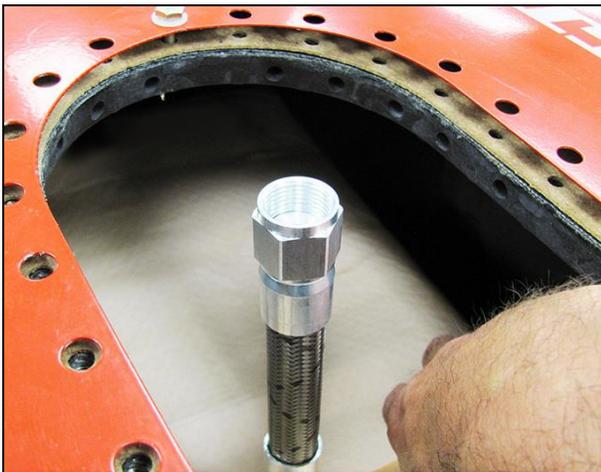


Figure 11

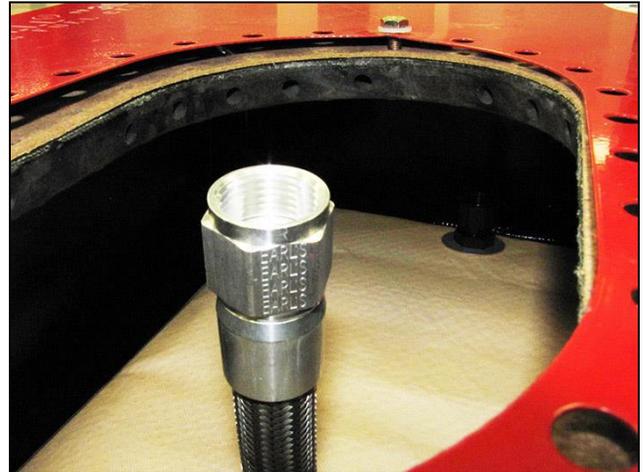


Figure 12

8. Place fill plate on the cell and measure where the feed and return hose should be placed. Drill a  $5/16$ " hole (hole on right - **Fig. 13**) for the AT983210ERL 10AN feed hose bulkhead and a  $3/4$ " hole (hole on left - **Fig. 13**) for the AT983208ERL 8AN return hose bulkhead (bulkheads included in LS0010ERL hose assembly). Make sure there is at least 3.5" center to center on the holes drilled.

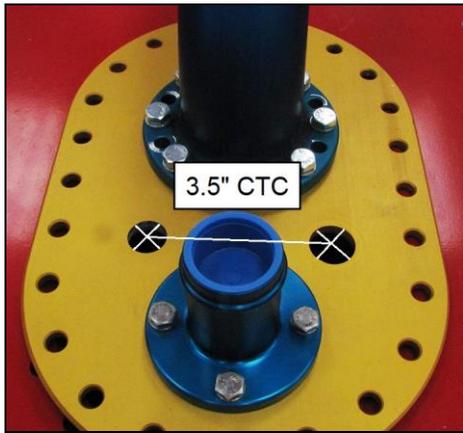


Figure 13

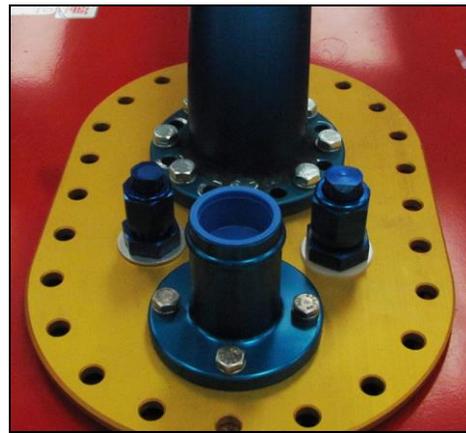


Figure 14

9. Install the bulkhead fittings (**Fig. 14**). Install the stat-o-seals (included in LS0010ERL hose assembly) or equivalent on each side of the fill plate when installing bulkhead fittings to prevent fuel leaks.
10. Install the return hose with the T-fitting to the fill plate (**Fig. 15**). Tighten the 8AN fitting to 270-350 in./lbs.

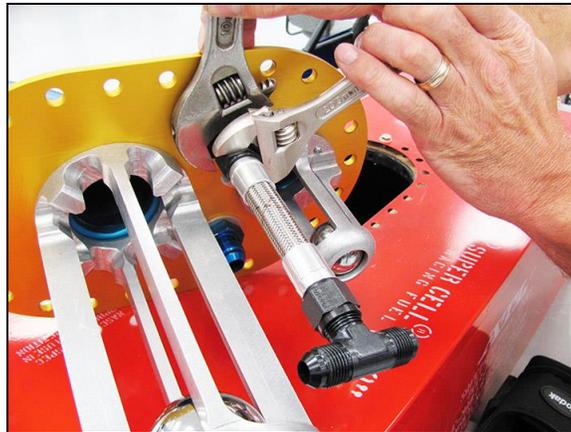


Figure 15

11. Temporarily, attach the feed hose to the bulkhead fitting in the fill plate.



Figure 16

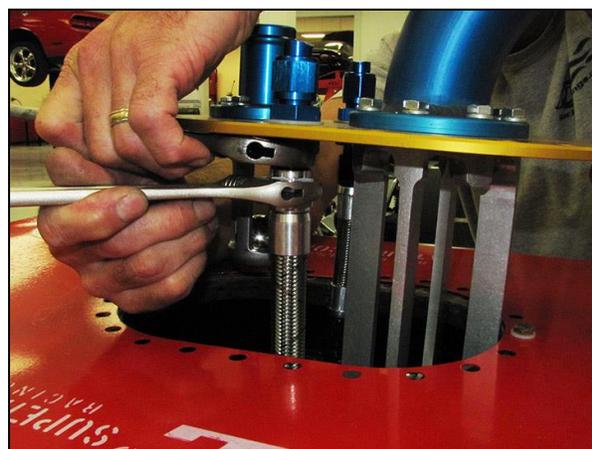


Figure 17

12. Mark and notch the foam to clear the fuel hoses, as needed (**Fig. 18**). Disconnect hoses.



Figure 18

13. Reinstall the foam into the cell.
14. Attach the feed hose to the bulkhead fitting in the fill plate. Tighten the 10AN fitting to 360-430 in./lbs.
15. Verify that the HydraMat is flat with no wrinkles. Reinstall the fill plate assembly (Fig. 19).



Figure 19

**NOTE:** Figure 20 shows how the completed HydraMat should appear after installation for road coarse applications – tank and foam removed for clarity. The HydraMat serves as a 15 micron pre-filter to the fuel pump.

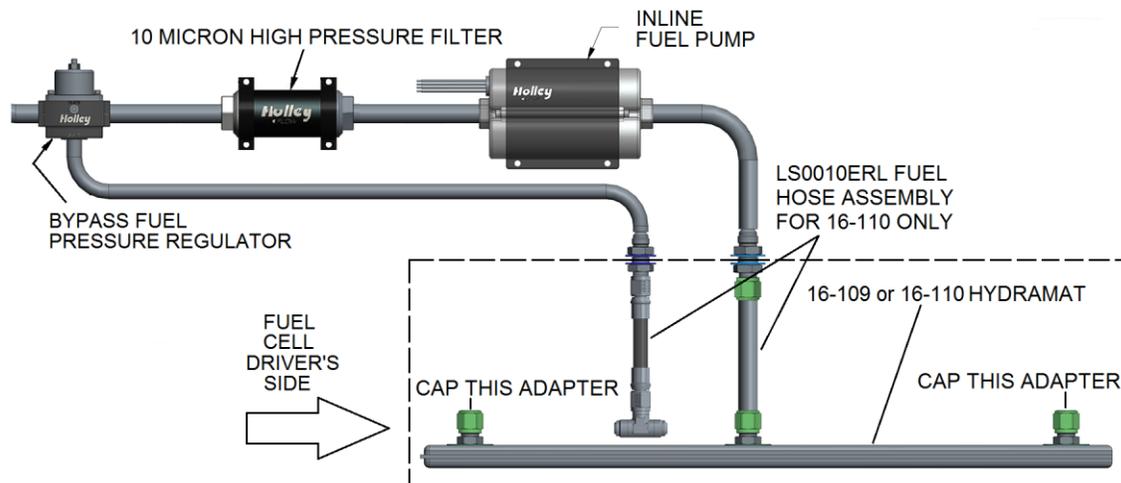
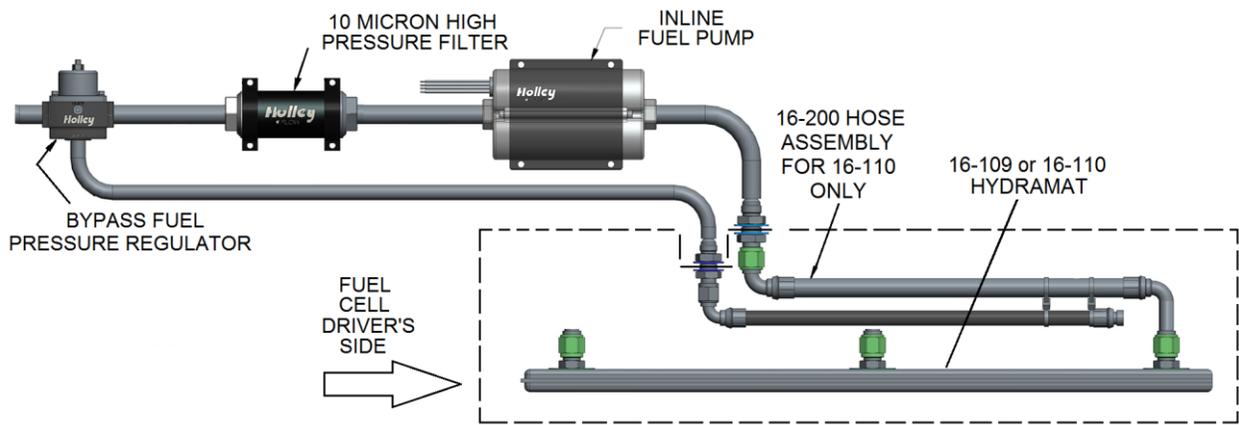


Figure 20 – Road Course Applications

**NOTE:** Figure 21 shows how the completed HydraMat should appear after installation for circle track applications – tank and foam removed for clarity. The HydraMat serves as a 15 micron pre-filter to the fuel pump.



**Figure 21 – Circle Track Applications**

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