



# Operating Instructions for TAS-1312 Smoke Fluid Loader Accessory

## Removing your Smoke Fluid Loader from the packaging

This Smoke Fluid Loader has been packaged to ensure safe delivery to you. As you can clearly see the original MTH box has been modified to accept the fluid loader boom and requires some special attention to safely remove it from the packaging. The photo below illustrates points to watch for when opening the package and removing the accessory. Please take care in removing the accessory to prevent any unnecessary damage from occurring.



Ensure the box lid does not put undue stress on the boom protruding from the box top.

Carefully lift the clear plastic support upwards, careful not to scratch the side of the boom.





Lift the removable roof up, slightly and to the right sliding it out from under the boom and set it aside. **Be careful not to bend the boom doing this!**

Carefully remove the foam packaging and lift the smoke fluid bottle straight up, out of the box.



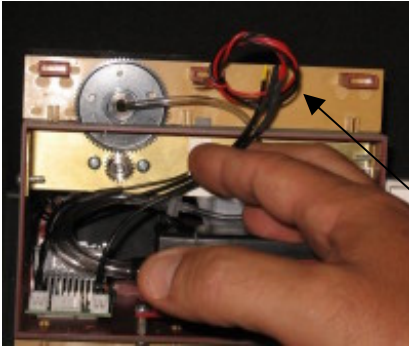
Firmly grasp the sides of the building and carefully lift the loader out of the packaging. Once the accessory has been removed place all packaging foam back in the box and save it for future storage.

Now that the accessory is removed from the packaging we strongly recommend reinserting all the foam in the box and saving the outer shipping carton. In the event the accessory ever needs to be returned to TASTudios we will only accept it if it is returned in the original packaging, properly packaged.

### **Wiring the Smoke Fluid Loader Accessory**

The Smoke Fluid Loader is designed for Command Operation using AC power under either TMCC or DCS control. **DO NOT** apply DC current to this accessory, as it will void the warranty!

Carefully lift the accessory upwards (**DO NOT** turn it upside down, your loader was tested for proper operation and still has some smoke fluid in the fuel tank. It will spill out if you turn the building upside down!) and locate three wires stuffed between the mount bracket and the fuel pump. The photo on the next page illustrates these wires.



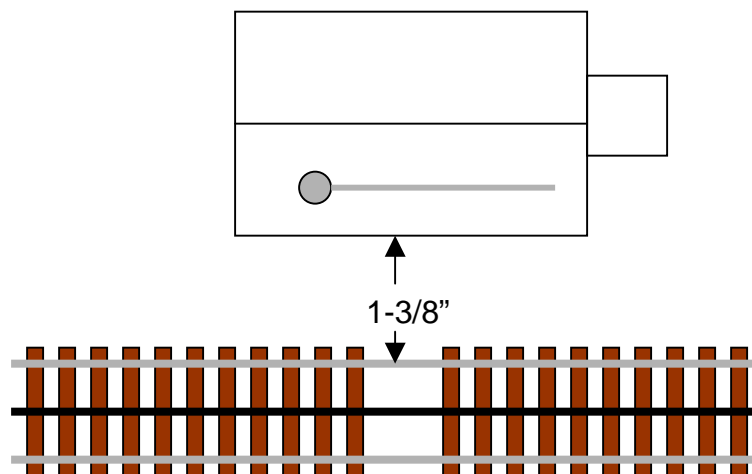
Locate the red/black power wire bundle and the single black wire with the yellow shrink tube over the end. These wires should come loose easily! DO NOT tug on any wires!

The red/black wire bundle is for Power and Ground. The Red wire should connect to AC hot (or center rail) and the Black wire should connect to AC ground (or outside rails). Your smoke fluid loader should be operated on 18 VAC constant power. You can either drill a hole in the benchwork and route the wires under the layout or route the power wires through the hole in the side of the building (under the deck, opposite the fluid boom) and make the connections above the benchwork.

The single black wire with the yellow shrink tube is a secondary antenna wire. In the event the motor mount does not provide a sufficient antenna for clear reception the black wire, with yellow shrink tube, can be connected directly to the command base. (This should not be necessary in most applications.)

### Positioning your Smoke Fluid Loader

The boom on the Smoke Fluid Loader is designed to make a 180 degree arc, across all three rails of the track. This way the boom can reach steam locomotive stacks, which are centered on the boiler, and offset smoke stacks on some diesels. You will want to place the Smoke Fluid Loader approximately 1-3/8" away from the outside rail of the track. The illustration below clearly shows this dimension.

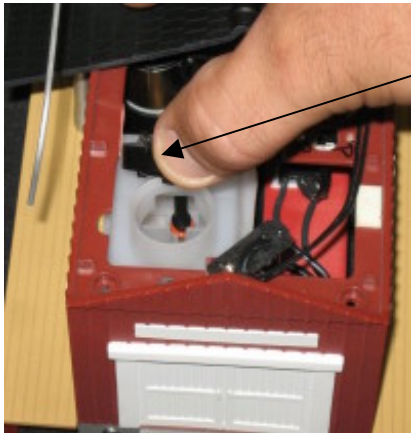


Dimension is from outside rail to edge of deck

## Loading the Smoke Fluid Tank

Remove the roof half that has the gray smoke stack molded into it. Carefully lift the roof half up and away from the structure without interfering with the fluid boom. Under the roof, inside the structure you will find the fluid tank. This is where your smoke fluid is stored. Ensure the fluid tank has fluid in it at all times, if the fluid level drops the boom will “spit” fluid and make a big mess!

To load the fluid tank carefully lift the spring loaded hatch up and add fluid. We recommend using a small funnel versus pouring the fluid in directly from the bottle. A small funnel will ensure a neat and clean transfer of fluid. The photo below illustrates the location of the fluid tank.



Hold the spring-loaded hatch open to add smoke fluid to the fluid tank.

Once you add smoke fluid to the fluid tank **DO NOT FLIP THE ACCESSORY UPSIDE DOWN!** There is a small air inlet at the top of the tank that allows the fluid to be siphoned out by the pump. If the accessory is turned upside down the fluid will leak out all over the place!

## Assigning your Smoke Fluid Loader a New ID Number

The Smoke Fluid Loader is designed to be operated on AC current under the control of either Lionel TMCC, TMCC II/Legacy or MTH DCS. You can only assign a new ID number using either a Lionel Cab-1/Command Base or with the new Legacy Cab-2 and new command base (DCS users must use the Lionel controls to assign a new ID number, all other operational aspects will work fine).

Under the roof, near the fluid tank there is a switch labeled with a “P” and an “R”. This is the program/run switch used to assign your loader a new ID number. To assign a new number apply 18 Volts of AC current to the loader and slide the program/run switch to the “P” position. Using the Cab-1 or Cab-2 remote press the following keys:

**ENG + ID NUMBER + SET + AUX1 + 8**

(ID Number is any 1 or 2 digit address from 1-99)

Nothing will happen when you press the SET key, no light verification, no motor action. Slide the program/run switch back to the "R" position. The Fluid Loader will remember its address until you change it again in the future.

### **Operating your Smoke Fluid Loader**

To operate the boom, turn the red thumbwheel clockwise, the boom will begin to rotate at a constant speed. Once you have the boom in the position you want press the DIR key one time. The boom will stop immediately and be ready to return to the structure once refueling has ceased.

To activate the pump loader press AUX1 + 9. The interior lights will turn on whenever the pump is active. By turning the red thumbwheel you will start powering the pump, turn it slowly, as the faster you turn the throttle the faster the fluid is ejected. You can either turn the red thumbwheel counterclockwise or press the DIR button to stop the flow.

Press the AUX1 + 8 to turn the fluid pump off (this will turn the interior lights off too).

Once again turn the red thumbwheel clockwise to return the boom over top of the roof. Operation is complete!

***We STRONGLY recommend experimenting with a cup or small bowl before trying to add smoke fluid to your locomotive. This will allow you to get a "feel" for the speed and amount of fluid that comes out of your loader.***

### **Maintenance**

The Smoke Fluid Loader should require very little to no maintenance. The only points on the loader that may require lubrication would be the fluid boom, where the it passes through the deck and the roof of the structure. Using a very small needle applicator, apply a small dab of 3 in 1 oil to the fluid boom under the deck and under the roof to keep them lubricated. The deck and the roof holes are acting as bearings for the boom, keeping it perpendicular. The holes are drilled 0.002" larger than the diameter of the shaft, so lubricating these "bearings" is important over time. (Each position has been oiled from the factory during the testing process.)

The bulbs inside your Smoke Fluid Loader are 18 Volt bulbs that can be acquired from MTH Electric Trains. The part number for the bulbs is CI-0000009. Each fluid loader is equipped with 2 bulbs.

### **Warranty**

Each Smoke Fluid Loader Accessory has been constructed by hand at TASTudios. Care has been taken to ensure proper operation and assembly of each accessory. Like any other mechanical device in the world, despite our best attempts to prevent any problems, they do sometimes occur. In the event your Smoke Fluid Loader needs servicing and is within the 1 year warranty term (1

year from the date of purchase) return it to TASTudios in the packaging it was originally shipped to you in. TASTudios will cover any defects in assembly or mechanical defects. Should your Loader require servicing/repair please include a check in the amount of \$16.00 to cover return shipping of your Loader. Labor and materials will be free during the warranty period. If you need service outside of the warranty period please contact TASTudios at 330-533-7181 Monday-Friday 9a-5p EDT for instructions and an estimate of repair charges.

### **Additional Smoke Related Products from TASTudios**

TAS-2000	4 Fluid Ounce Bottle of Unscented Smoke Fluid	\$8.95
TAS-2000-1	½ ounce bottle of Cherry Scented Smoke Fluid	\$3.00
TAS-2000-2	½ ounce bottle of Dogwood Scented Smoke Fluid	\$3.00
TAS-2000-3	½ ounce bottle of Hot Apple Pie Scented Smoke Fluid	\$3.00
TAS-2000-4	½ ounce bottle of Evergreen Scented Smoke Fluid	\$3.00
TAS-2002	AC Turbo Smoke Unit (Fan Driven smoke units)	\$69.95
TAS-2003	Fan Driven smoke unit for Protosound 2.0 Conversions	\$35.00
TAS-2004	DC Turbo Smoke Unit (Fan Driven smoke units)	\$69.95

Please visit our website at <http://www.tastudios.com> for more information on future announcements of our limited edition accessories line.

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