



SERVICE INSTRUCTIONS  
HI-LO REFILL KIT  
(HIGH OUTPUT UNITS)

385789  
385790-A1  
385790-B1  
385994

DESCRIPTION

- 385994 — This Hi-Lo Refill Switch is used to actuate desired High and Low Warning Systems, and has provision for Automatic Refill capability when used in conjunction with suitable Refill System components. (See page 2 for complete description.)
- 385789 — The 385789 Hi-Lo Refill Switch Kit consists of one 385994 Switch Assembly (see above) and the necessary installation hardware, e.g. connectors, tees, conduit, etc., to adapt Model 3720 and 3730 Series Oil-Mist Units for Automatic Refill function with (not supplied) Solenoid Valve. (See Parts List, page 4.)
- 385790-A1 — This consists of the 385789 Kit (see above) and one 383647-1 Solenoid Valve (120 V.), which completes all installation components needed.
- 385790-B1 — Same as the 385790-A1, with the exception of one 383647 Solenoid Valve (240 V.) in place of the 383647-1 (120 V.) Solenoid Valve.

INSTALLATION

1. Turn air supply valve OFF (not part of Oil-Mist Unit). Turn electrical source OFF.
  2. Remove 2 NPTF Reservoir Drain Plug and drain Reservoir. Clean Plug and re-install.
  3. Remove 1 NPTF Elbow Fill Port and Plug from left side of Reservoir and set aside.
  4. Loosen four Screws securing Terminal Board Cover and Gasket Assembly. Remove Cover with Screws and set aside.
  5. Disconnect the three 385007-1 Switch leads to the Terminal Board.
  6. Loosen the outer Hex Locknut on the Nipple that seals the Switch to the Terminal Box. After unthreading as far as possible, push Ferrule and Gasket away from the outer Terminal Box wall. (See Figure 1)
  7. Using care, remove the Nipple (with both inner and outer Locknuts, Ferrule, and Gasket still attached) from the elbow of the Switch Assembly. Move the Nipple as far into the Terminal Box as practical to provide clearance for vertical removal of the Switch.
  8. Remove the four Screws holding the 385007-1 Switch to the Reservoir and set aside.
  9. Remove complete Switch Assembly and discard. Save Reservoir Gasket for new Switch installation.
  10. Install new Hi-Lo Refill Switch Assembly, using Reservoir Gasket saved from old Switch. Install in Reservoir opening with Switch elbow to the rear of unit. Secure with four Screws previously removed from old Switch installation.
  11. Thread new Switch leads through loosened Nipple in Terminal Box wall.
  12. Thread Nipple into elbow on Switch Assembly and tighten. Tighten and loosen Locknuts as necessary to properly align an oil-tight seal to the Terminal Box.
  13. Install Nipple **[11]** in open port on the left side of Reservoir and tighten. (See Figure 3)
  14. Fit Nipple **[2]** to Reducing Tee **[3]**, tightening Nipple as far as possible into Tee.  
  
**NOTE:** In the event that the High Output Oil-Mist Unit being converted is mounted flush with a wall or flat surface directly to its rear, care must be taken during the following installation steps to avoid clearance problems.
  15. IF CLEARANCE TO THE REAR IS LIMITED:
    - a. Remove the nut and I.D. plate from the rear of 383647 or 383647-1 Solenoid Valve supplied with the 385790-A1 or 385790-B1 Kits. Remove electrical leads, fitting, coil, and coil cover body from Valve body. (See Figure 3)  
  
**CAUTION:** Solenoid Valve flow ports are labeled "IN" and "OUT". Nipple **[2]** must be installed in "OUT" port.
    - b. Fit valve body to Nipple **[2]** so that rod of Solenoid Valve is to the rear of the Reservoir when Reducing Tee **[3]** is threaded to Nipple **[11]**.
    - c. Fit Tee, Nipple, and Solenoid Valve body, as a unit, to Nipple **[11]**. Secure parts vertically aligned to Reservoir. (See Figure 3)
- IF CLEARANCE TO REAR IS NOT LIMITED:
- a. Fit Solenoid Valve to Nipple **[2]**.  
  
**CAUTION:** Solenoid Valve flow ports are labeled "IN" and "OUT". Nipple **[2]** must be installed in "OUT" port.

(Cont'd. on Page 2)

Alemite Corporation  
167 Roweland Drive, Johnson City, Tennessee 37601  
www.alemite.com

Copyright © 2003 by Alemite Corporation

## INSTALLATION (Cont'd.)

- b. With Solenoid Valve coil housing to the rear and electrical fitting to the top, fit Solenoid Valve, Nipple, and Tee, as a unit, to Nipple [11]. Secure parts vertically aligned to Reservoir. (See Figure 3)

If parts are properly aligned but not tight enough for proper seal, disassemble, coat male threads of parts with pipe sealant, and reassemble in alignment.

If Solenoid Valve has been disassembled for fitting, replace parts, with electrical fitting to the top rear. (See Figure 2)

16. Thread Solenoid Valve leads through Conduit Connector [7], Gasket [10], Ferrule [4], then through Conduit [6]. Fasten Conduit to Solenoid Valve with Connector [7].
17. Thread Solenoid Valve leads through 90° Conduit Connector [8] and fasten Connector to Conduit.
18. Guide leads through Ferrule [4] and Gasket [10]. Fit Connector, Ferrule, and Gasket to center opening on top rear of Terminal Box and secure. (See Figure 3) Attach two Insulated Terminals [9] to the leads.
19. Make proper connection of 385994 Hi-Lo Refill Switch Assembly leads and Solenoid Valve leads to Terminal Board Assembly (see Switch Wiring Diagram, page 3). Replace Terminal Board Cover and Gasket Assembly and secure with four Screws.
20. Attach Filter Assembly [5] to Adapter [1]. Observe flow indicators stamped on Filter Assembly, fitting Adapter to "OUT" port of Filter.
21. Fit Adapter and Filter Assembly to "IN" port of Solenoid Valve.
22. Replace Elbow Fill Port and Plug in open end of Reducing Tee [3] and tighten with Plug port end up.
23. Attach Oil Supply Line (not supplied) to Filter Assembly [5] (attachment fitting not supplied).
24. Open Oil Supply Line from Oil Source.
25. Check 385994 Switch rating (page 2) before turning electrical source ON. If Proper, turn source ON. Turn air supply valve (not part of Oil-Mist Unit) ON.
26. 385994 Hi-Lo Refill Switch will now open Solenoid Valve, filling Reservoir to proper level. Sensing proper level, Switch will close Solenoid Valve. 385994 Switch will continue adding necessary oil to Reservoir as long as oil supply to the unit is continuous. Input oil pressure to the unit should not exceed 500 PSI.

### INSTRUCTIONS FOR 385994 HI-LO REFILL SWITCH (HIGH OUTPUT UNITS)

#### DESCRIPTION

The 385994 Hi-Lo Refill Switch is used to energize a High Level Warning System, a Low Level Warning System, and an Automatic Refill System in the 3720 and 3730 Series High Output Oil-Mist Generators.

The 385994 Hi-Lo Refill Switch is shipped from the factory in one size only, fitting both the 3720

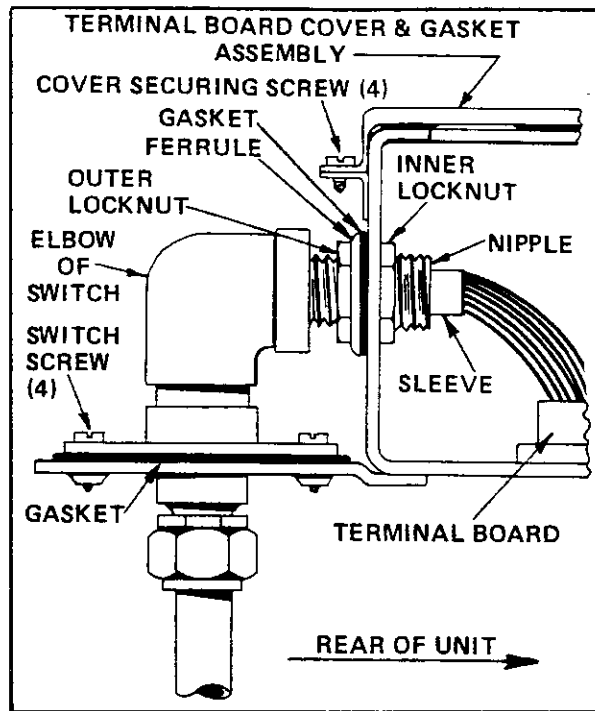


Figure 1. 385994 Hi-Lo Refill Switch Installation

and 3730 Series Reservoirs, in 13, 21 and 41 CFM Ratings.

The High and Low Level Switch components are single pole, double throw elements, while the Automatic Refill System has a single pole, single throw switch.

Switch Temperature Range: -40° F. to 250° F.  
Hi-Lo Level Switch Rating: 60 watts (0.5 amp max)  
90-250 VAC  
Refill Switch Rating: 10 watts 90-250 VAC

#### ASSEMBLY (See Figure 2)

1. Unthread and remove the nut and rubber seal from 384882-1 Fitting.
2. Thread the body of 385882-1 Fitting into the 384867-B4 Plate Assembly from the outside and tighten securely with a wrench. Thread 384881 Elbow into 384867-B4 Plate Assembly.
3. Slip nut and rubber seal (previously removed from 384882-1) onto tubing. Push wires from tubing through body of 384867-B4 and 384881 as far as they will go, and securely tighten nut to body with a wrench. Make sure that the Tube and Float Assembly is 90° to the Plate and Elbow to avoid the Float hitting the inside of the Reservoir.

#### INSTALLATION

1. Unthread the four Screws that secure the old Switch to the Reservoir and remove them. Remove the old Switch and the Gasket from the Reservoir opening, discarding the Switch but retaining the Gasket.
2. Relocate the Gasket over the Reservoir opening, lower the 385994 Switch Assembly into the opening (with elbow normally to the rear of the unit), and secure Switch with the four Screws previously removed with the old Switch.

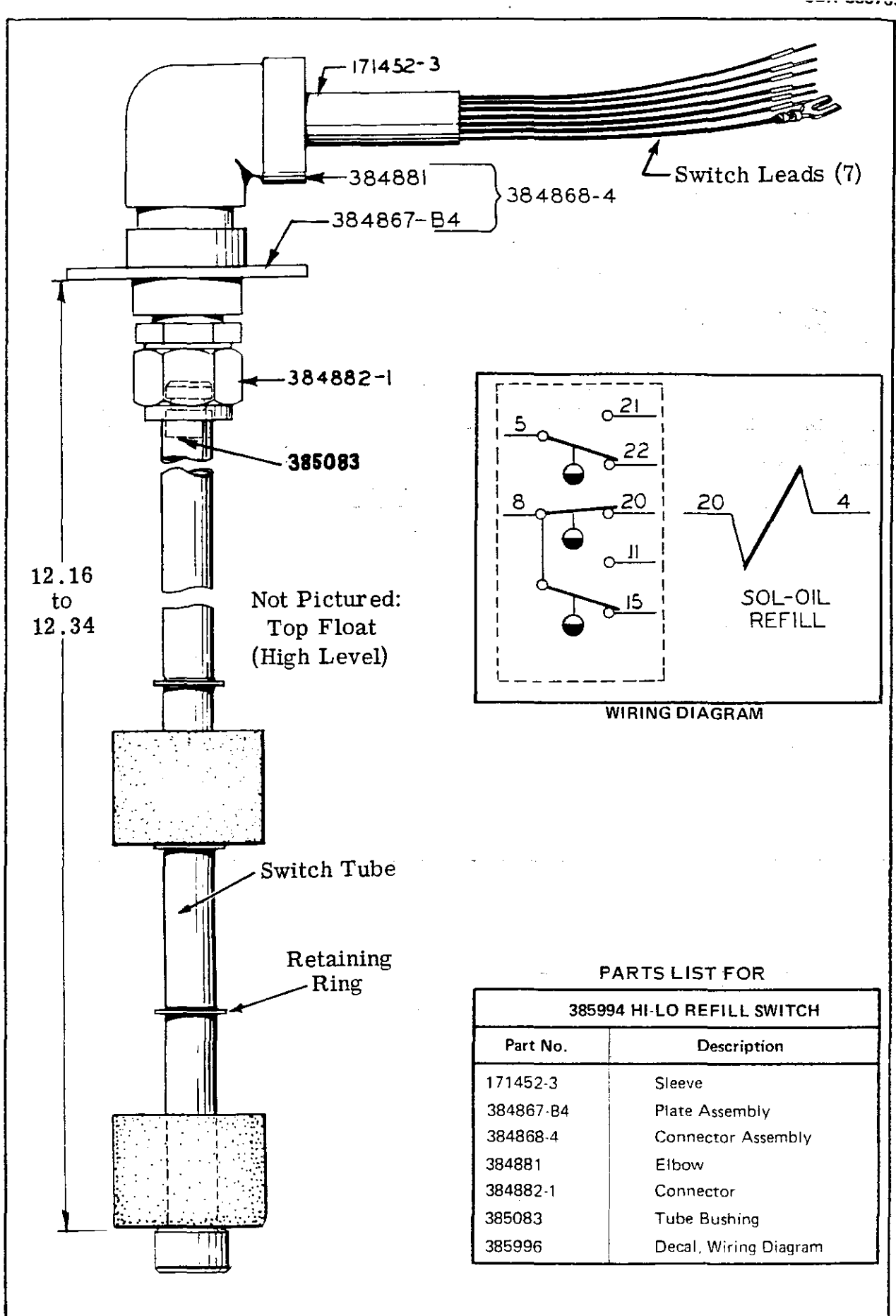


Figure 2. 385994 Hi-Lo Refill Switch

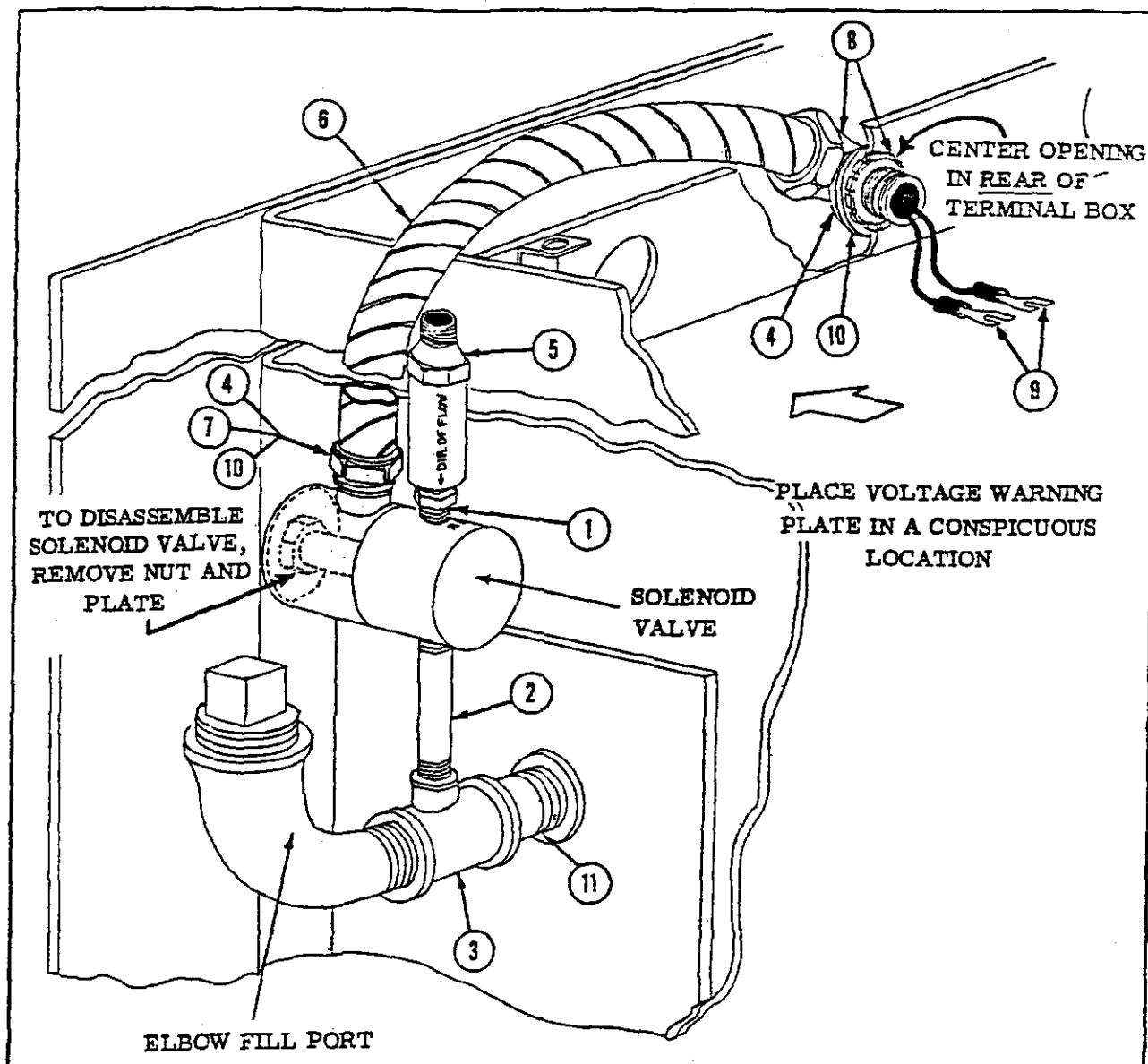


Figure 3. 385789, 385790-A1 and 385790-B1 Hi-Lo Refill Switch Kit Installation

#### PARTS LIST FOR

##### 385789 HI-LO REFILL SWITCH KIT

Item No.	Part No.	Description	Qty.
1	327033	Adapter	1
2	172261-4	Nipple, 1/4 NPT x 2-1/2" Standard	1
3	171949	Tee, Reducing Pipe 1" x 1" x 1/4"	1
4	323357-1	Ferrule	2
5	332970	Filter Assembly	1
6	386486-9	Conduit, 1/2" x 14" long	1
7	330220	Connector, 1/2" Flex Conduit	1
8	335183	Connector, 90° 1/2" Flex Conduit	1
9	384973-1	Terminal, Insulated	2
10	384975	Gasket	2
11	172265-1	Nipple, 1" x 1-1/2" Standard	1
	385994	Hi-Lo Refill Switch	1
	385999	Warning Plate (Voltage)	1