

HT400

Flow Switch Upgrade Instructions

801220 - Rev. 1

HT400
**Flow Switch Upgrade
Instructions**

IM-122
(P/N 801220)

Revision 1 June 2000

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Purpose

The HT400 flow switch upgrade instructions provide the necessary information to allow the removal of the existing flow switches and replacing them with the Kobold flow switch manifold subassembly.

Customer Supplied Tools

Drill
3/16" (0.187)/4.762mm drill bit
Straight blade screwdriver
7/16" (11.11 mm) open-end wrench
9/16" (14.29 mm) open-end wrench
11/16" (17.46 mm) open-end wrench
1/4" (6.35 mm) hex wrench

Flow Switch Assembly Upgrade Kit (# 028484)

Part No.	Description	Qty.
029546	Kobold flow switch manifold SA	1
005139	Flow switch, 0.25 GPM	
005140	Flow switch, 1.20 GPM	
004456	Flow switch manifold	
074005	Cable Tie	5
075040	M/S:10-32 X 5/8	3
075186	Lock washer:#10 Intl-T	3

Procedure

Remove Existing Flow Switches

To remove the existing flow switches, refer to the following procedure and the figures called out from the HT400 Plasma Arc Cutting System Instruction Manual IM-54 (P/N 800540).

1. Shut the power supply down at the front panel and turn off power at the disconnect box. Disconnect the gas supply to the power supply. Disconnect the water supply to the power supply.
2. Remove the top cover and the left side cover to access the flow switches on the center wall. Refer to Figure 38.
3. Remove the tyrap from around the flow switches leads which are connected to the terminal strip located on the opposite side of the wall..
4. Disconnect the 4 switch leads (red) from the terminal strip. These leads are marked 4 (2), 5, and 6.
5. Disconnect the input water hose (left side) from flow switch 2FLS (005053). Refer to Figure 38. Disconnect the other end of the hose from the water manifold (top hose) at rear panel. Refer to Figure 39. Remove the plug from the upgrade kit and screw into the manifold where the hose was disconnected. Refer to Figure 1 in this upgrade instruction.

6. Disconnect and tag the remaining hoses at the flow switches.
7. Remove the bolts, washers, and screws to remove the flow switches.

Install Upgrade Kit

To install the Kobold flow switch manifold subassembly upgrade kit, refer to Figures 1 and 2 and perform the following procedure.

1. Refer to Figure 1
2. On the side of the wall with the terminal strip, position the template as indicated. Remove any leads from the terminal strip that interfere with drilling.
3. Drill the three holes.
4. Align the three holes in the manifold (004456) with the holes on the wall.
5. On the terminal strip side of the wall, install the screws with lockwashers through the wall and into the manifold subassembly.
6. Route the flow switch leads to the terminal strip on the opposite side of the wall. Connect leads to the terminal strip as shown.
7. Replace ties to secure flow switch leads.
8. To connect the water hose assemblies, proceed as follows:
 - Connect the WATER IN hose assembly (024102) from the manifold at the rear panel to the manifold (004456).
 - Connect the WATER OUT - ELECTRODE hose assembly (024138) to flow switch 1FLS (005140/1.20 GPM).
 - Connect the hose assembly (024139) from the WATER flow meter on the front panel to flow switch 2FLS (005139/.25 GPM).

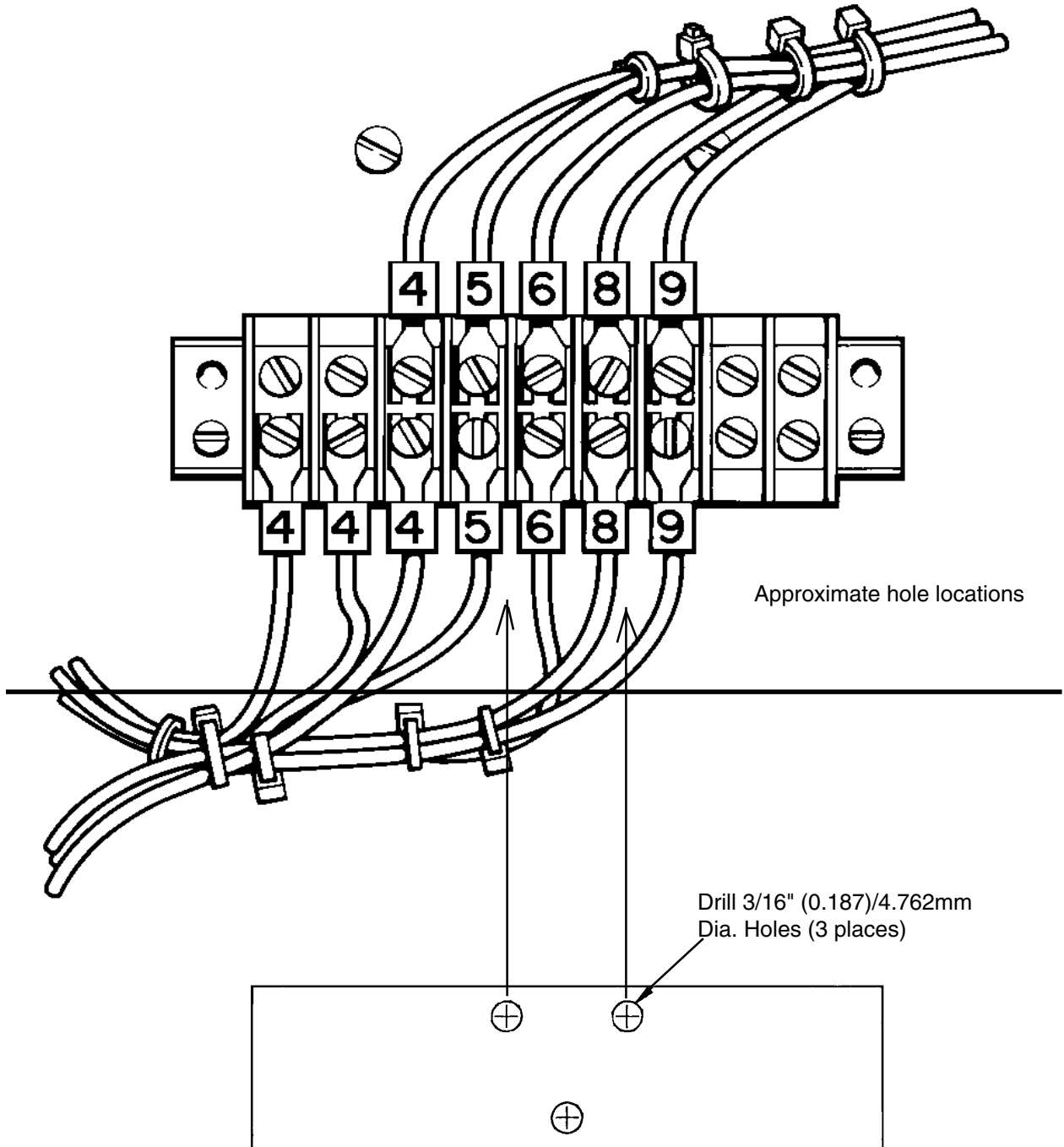


Figure 1 Mounting Holes

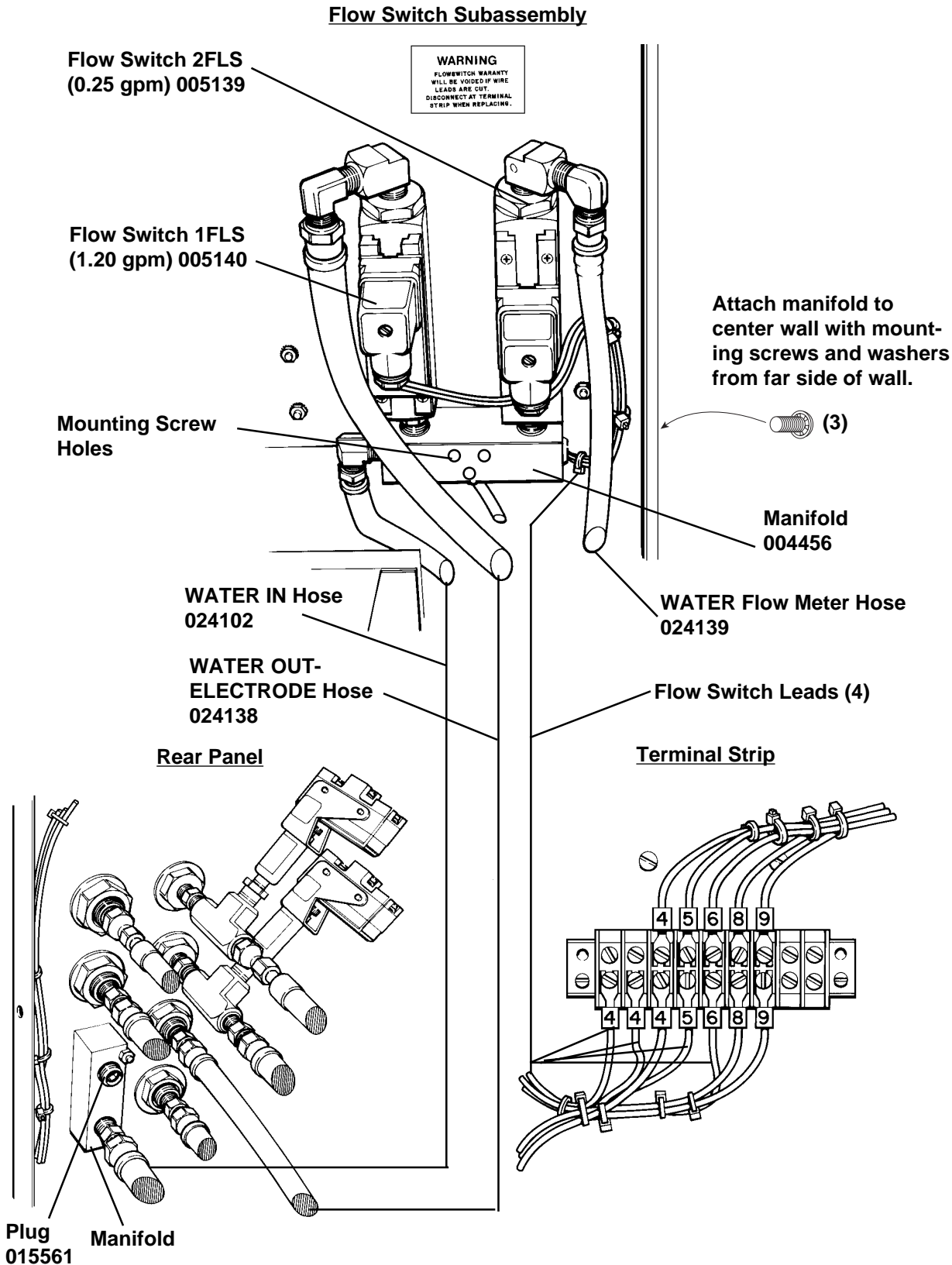


Figure 2 HT400 Upgrade Kit Installation