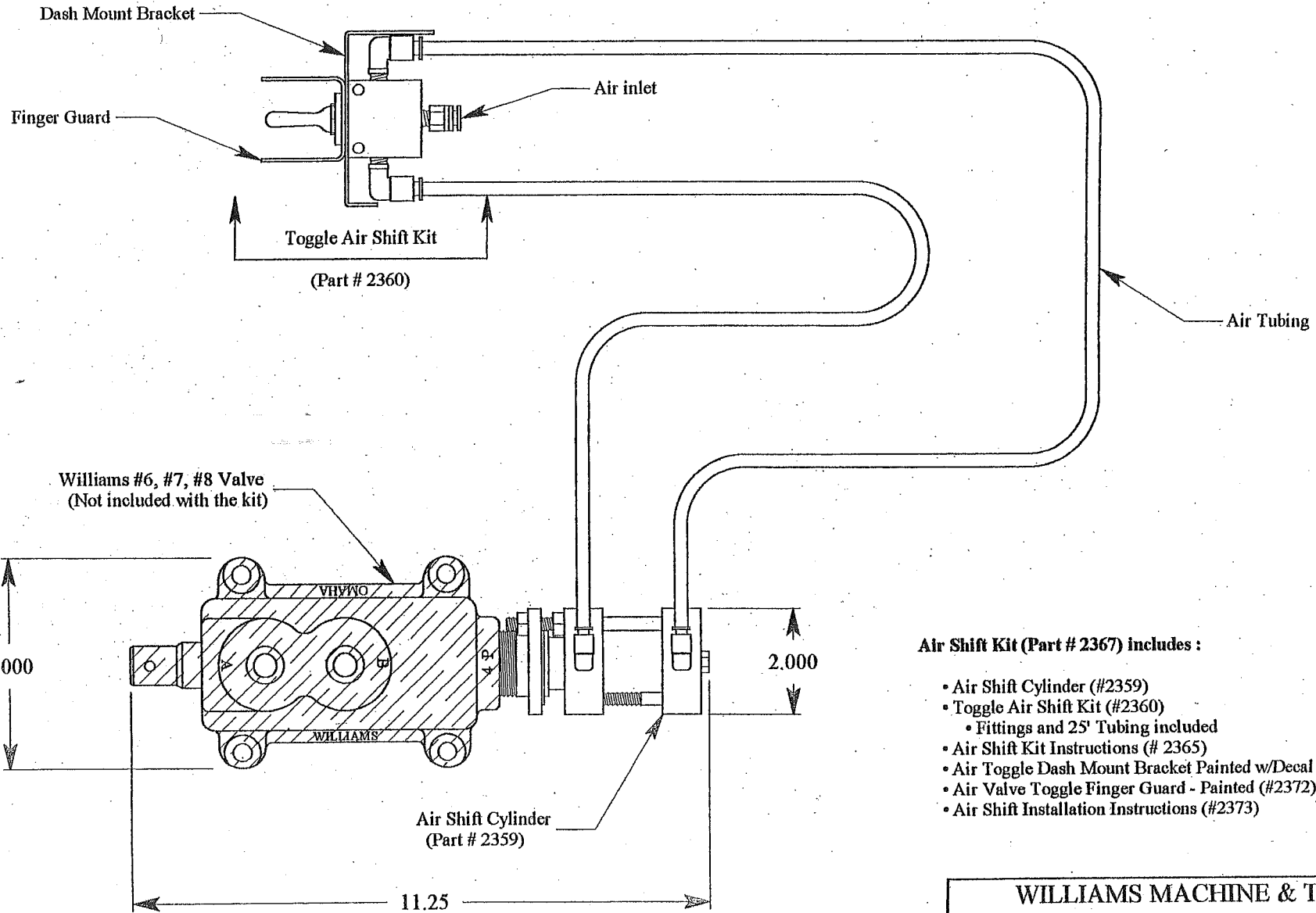


# Williams Air Shift Hoist Controls



## Air Shift Kit (Part # 2367) includes :

- Air Shift Cylinder (#2359)
- Toggle Air Shift Kit (#2360)
  - Fittings and 25' Tubing included
- Air Shift Kit Instructions (# 2365)
- Air Toggle Dash Mount Bracket Painted w/Decal (#2366)
- Air Valve Toggle Finger Guard - Painted (#2372)
- Air Shift Installation Instructions (#2373)

WILLIAMS MACHINE & TOOL CO.

# Air Shift Installation Instructions



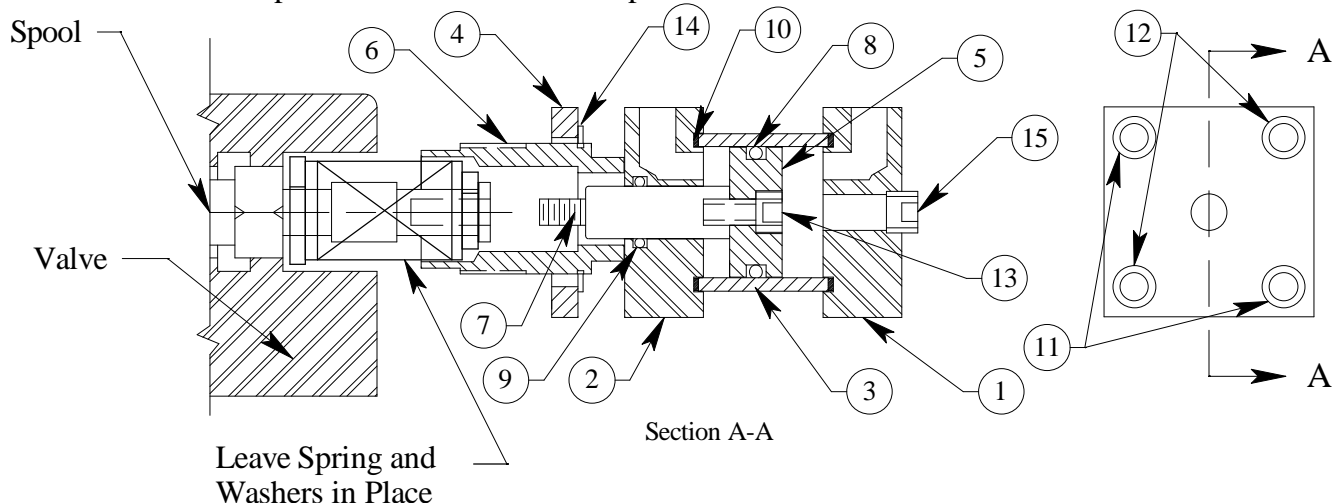
## DANGER

Before beginning installation work, make sure the truck box is empty and properly blocked/braced. Disconnect hydraulic hoses from the valve to the hoist cylinder after the truck box is properly blocked/braced. Serious injury or death will result from truck box falling in 1 second or less.

- 1.) Remove the existing endcap from the valve. Leave the spring and washers on the spool. Place the external retaining ring (Item 14) into the groove on the new endcap (Item 6) and place the air cylinder plate (Item 4) flush with the external retaining ring. Screw the endcap into the valve until the endcap bottoms out inside the valve.
- 2.) Using a long handled hex wrench, screw the threaded end of the piston/rod into the spool on the valve.  
Note : The hex wrench will insert through the rear block to tighten the piston/rod (Remove the pipe plug on the rear of cylinder, if required). After securing the piston/rod to the spool, install the plug (Item 15) into the rear block.
- 3.) Orient the ports on the front & rear blocks as desired. Slide the air cylinder plate (Item 4) over the (2) long cap screws, and use the remaining two hex nuts to tighten. **Do Not Over - Tighten** : Overtightening the air cylinder plate will cause the air shift to stick.
- 4.) Install airline fittings into the front & rear blocks. Install tubing from the fittings to the cab of the truck & connect to the air shift control.

**Note :** The Air Shift Kit must be properly installed and checked for proper operation before hydraulic hoses are re-connected from the valve to the hoist cylinder.

- 5.) Remove any manual controls and cables connected to the valve. The manual control handles and cables may bind, causing the air shift kit to stick.
- 6.) Connect an air supply to the air shift control, and test the air cylinder for proper operation. The air cylinder must allow the spool to return to the neutral position when the air shift control is not actuated.



Item No.	Quantity Req'd	Part Description
1	1	Rear Block
2	1	Front Block
3	1	Air Cylinder
4	1	Air Cylinder Plate
5	1	Piston
6	1	Endcap
7	1	Piston Rod
8	1	O-Ring
9	1	O-Ring
10	2	Seal
11	2	Bolt, Socket Head, 1/4 - 20 x 2"
12	2	Bolt, Socket Head, 1/4 - 20 x 3 - 1/4"
13	1	Bolt, Socket Head, 1/4 - 20 x 1/2"
14	1	External Retaining Ring
15	1	Plug

## AIR TOGGLE SWITCH MOUNTING INSTRUCTIONS

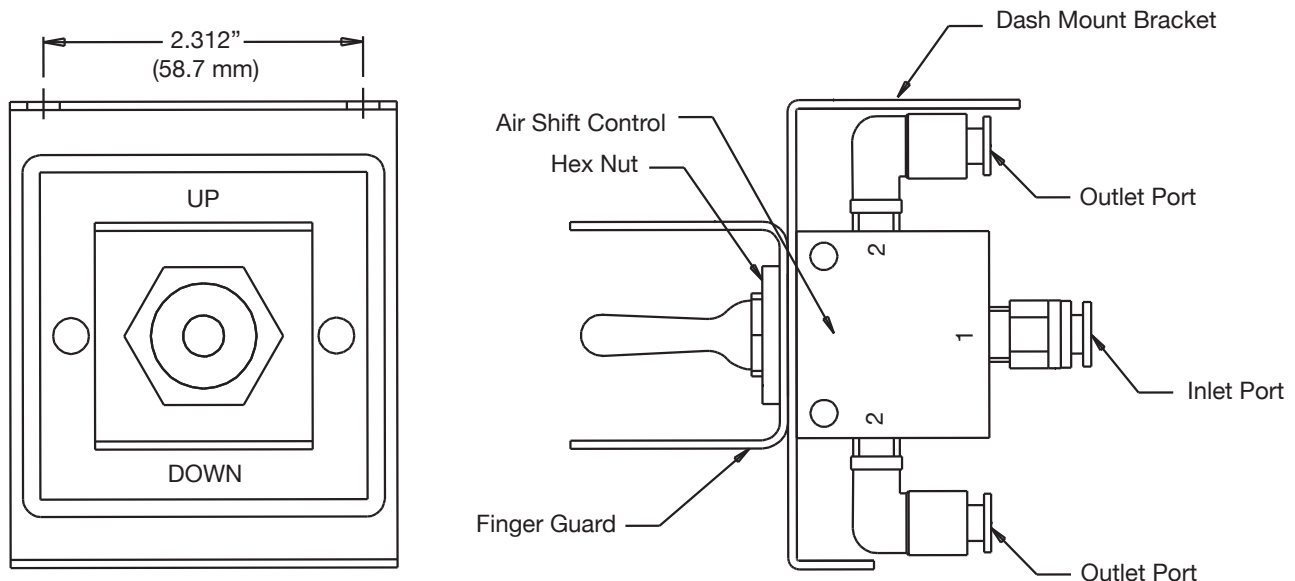


**DANGER**

Before beginning installation work, make sure the truck box is empty and properly blocked/braced. Disconnect hydraulic hoses from the valve to the hoist cylinder after the truck box is properly blocked/braced. Serious injury or death will result from truck box falling in one second or less.

1. Assemble air line fittings to the air shift control. Use 90° fittings on the outlet ports (Port #2) and straight fittings on the inlet port (Port #1).
2. Assemble the air shift control, dash mount bracket and finger guard as shown below. Secure the assembly with the hex nut provided.
3. Remove any manual control handles and cables connected to the valve. The manual control handles and cables may bind, causing the air shift kit to stick.
4. Connect an air supply to the air shift control, and test the air cylinder for proper operation.

**NOTE:** The air shift kit must be properly installed and checked for proper operation before hydraulic hoses are reconnected from the valve to the hoist cylinder. The air cylinder must allow the spool to return to the neutral position when the air shift control is not actuated.



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