

# SINGER MODEL 106/206-SC

## **Solenoid Control Valve**

Schematic A-0593C Installation, Operating and Maintenance Instructions

#### **DESCRIPTION:**

Model 106/206-SC is a globe or angle pattern valve designed for two position (open or closed) operation.

The position of Main Valve (1) is selected electrically by energizing or de-energizing Solenoid Valve (5). These valves are available as Normally Closed (NC) models, which close when the solenoid is deenergized or as Normally Open (NO) models, which open when the solenoid is de-energized.

### **DESCRIPTION OF OPERATION:**

Main Valve (1) closes when the inlet pressure is directed to the bonnet and opens when the bonnet is vented to downstream. Refer to 106/206-PG "Description of Operation". Solenoid Valve (5) connects the bonnet to upstream or downstream, as required.

Opening Speed Control (6) limits the rate of flow from the bonnet to downstream. Closing Speed Control (4) limits the rate of flow from the upstream to the bonnet. Note that Speed Controls (5) and (6) are optional on 3" and smaller valves and standard on 4" and larger. If the valve is not equipped with Speed Controls, the rate of opening and closing is fixed and can not be adjusted.

All valves include Strainer (3). Isolating Valves (2A), (2B) and (2C) are optional on 3" and smaller valves. They are standard on 4" and larger.

#### **INSTALLATION:**

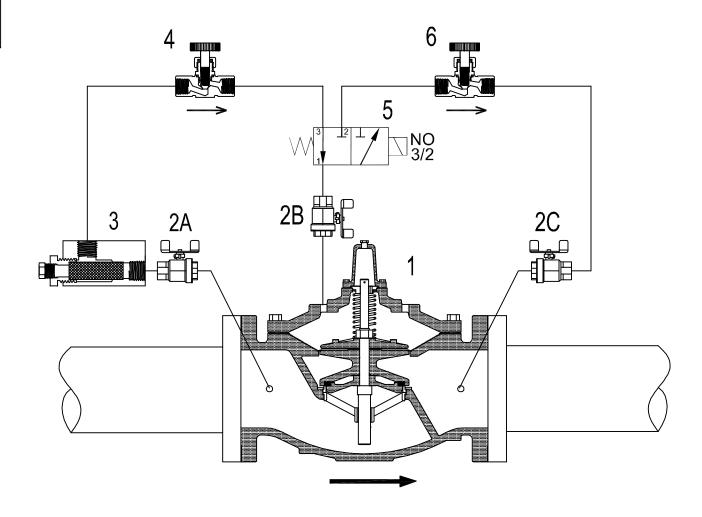
- 1. Refer to 106/206-PG "Installation".
- 2. Check Solenoid Valve (5) name plate for correct pressure. Check voltage at the side of the coil (not the name plate).
- Connect a suitable power source to the solenoid. Refer to solenoid valve instructions. Never energize an A.C. coil when the coil is removed from the solenoid valve; the coil will be destroyed in a matter of seconds.

#### ADJUSTING PROCEDURE:

If your valve is equipped with Speed Controls you can adjust the opening and closing speed. Turn appropriate Speed Control clockwise for reduced speed; counterclockwise for increased speed. DO NOT fully close either of the speed controls, or the valve will not operate.

### **SERVICE SUGGESTIONS:**

- See service suggestions for 106/206-PG and Solenoid Valve.
- 2. To reduce pressure drop on low flows, the exhaust of Solenoid Valve (6) can be piped to drain rather than downstream (provided that there is 5 psi or higher pressure in the downstream).
- 3. NEVER ENERGIZE AN AC SOLENOID COIL WHEN THE COIL IS REMOVED FROM THE SOLENOID VALVE.



- Main Valve Model 106/206-PG.
- 2. Isolating Valves. Optional 1/2"-3". Standard 4" & up.
- 3. Strainer 40 mesh J0098A.
- 4. Closing Speed Control Model 852-B. Optional 1/2"-3". Standard 4" & up.
- 5. Solenoid Valve.
- 6. Opening Speed Control Model 852-B. Optional 1/2"-3". Standard 4" & up.

# Solenoid Valve (SC-NC Shown).

Model 106 or 206-SC-NC, Main Valve Normally Closed when solenoid pilot is de-energized



energize Solenoid Pilot to open Main Valve.

Model 106 or 206-SC-NO, Main Valve Normally Open when Solenoid Pilot is de-enegized

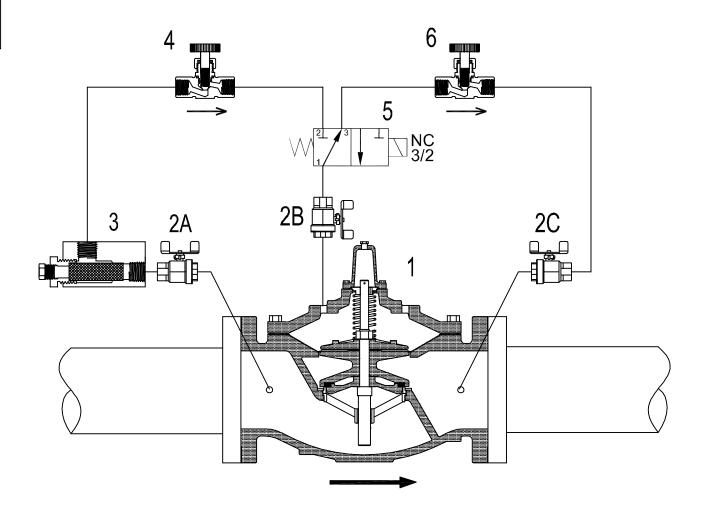


energize Solenoid Pilot to close Main Valve.

Rev C: All ball valves, closing speed control, opening speed control made optional 3" and smaller.



Model 106 or 206-SC-NC (or NO)



- Main Valve Model 106/206-PG.
- 2. Isolating Valves. Optional 1/2"-3". Standard 4" & up.
- 3. Strainer 40 mesh J0098A.
- 4. Closing Speed Control Model 852-B. Optional 1/2"-3". Standard 4" & up.
- 5. Solenoid Valve.
- 6. Opening Speed Control Model 852-B. Optional 1/2"-3". Standard 4" & up.

# Solenoid Valve (SC-NO Shown).

Model 106 or 206-SC-NC, Main Valve Normally Closed when solenoid pilot is de-energized



energize Solenoid Pilot to open Main Valve.

 $\operatorname{\mathsf{Model}}$  106 or 206-SC-NO, Main Valve Normally Open when Solenoid Pilot is de-enegized



energize Solenoid Pilot to close Main Valve.

Rev C: All ball valves, closing speed control, opening speed control made optional 3" and smaller.

