Adjusting a NEMA 1* Square-D, 9037 Series Float Switch

**PURPOSE OF SWITCH**

Normally used to automatically control the liquid level, by float movement, within a closed tank. When using switch, the pressure limit within the closed tank should not exceed 50 lbs.

**CHANGING ORIENTATION OF FLOAT ARM**

*WARNING!*

Switch is shipped with a bracket attached to the mounting plate to prevent the float from moving in the tank during shipment. When installing the unit, this bracket, clearly marked with a tag, MUST be removed for float switch to operate.

The "push rod" is removed by rotating it a quarter turn so that it will slip down and out of the switch mechanism. The rod is then reinserted into the left slot on the switch mechanism.

**Step 1 – Remove shipping bracket**

**Step 2 – Loosen set screw on pointer**

**Step 3 – Remove pointer**

**Step 4 – Remove spring clip to release plate**

**Step 5 – Remove circular plate**

**Step 6 – Move push rod from right to left side**

**Step 7 – Rotate float arm 180° to right side**

**Step 8 – Reattach circular plate**

**Step 9 – Reattach spring clip**

**Step 10 – Reattach pointer and set screw**

*NEMA 4 or NEMA 7 switches must be ordered with required orientation and contact action – can only adjust float travel range and replace seal.

See reverse side for additional adjustments.
REVERSING ACTION OF FLOAT

Starting Orientation: Push rod on right side and float on left side (see Figure 2-B).

Step 1 – Remove shipping bracket if still attached
Step 2 – Loosen set screw on pointer
Step 3 – Remove pointer
Step 4 – Remove spring clip (holding push rod to circular brass adjusting plate) to release plate
Step 5 – Remove adjusting plate
Step 6 – Move push rod from right to left side
Step 7 – Ensure float arm remains in original position
Step 8 – Reattach adjusting plate in original position
Step 9 – Reattach spring clip
Step 10 – Reattach pointer in original position
Step 11 – Fasten set screw on pointer

Ending Orientation: Push rod on left side and float on left side (see Figure 2-D).

The push rod and float are always on the same side to have contacts close when liquid falls (see Figure 2C or 2D). Also, the pointer should point to the same side as the float arm.

ADJUSTING TRAVEL RANGE OF FLOAT

Allow float to go higher (see Figure 3):
- Loosen screw (B)
- Slide the float travel adjusting plate (7b) to the left. This will allow the float arm to rise higher.
- Tighten screw (B)

Allow float to go lower (see Figure 3):
- Loosen screw (A)
- Slide the float travel adjusting plate (7a) to the left. This will allow the float arm to drop lower.
- Tighten screw (A)

REPLACING Z-20 SEAL

See Steps 1–5 in Changing Orientation of Float Arm section to remove pointer and circular plate.

Step 6 – Remove hex nut (C)
Step 7 – Remove bracket with switch housing
Step 8 – Remove spring clip (9)
Step 9 – Remove brass bushing (F) that fits inside the threaded brass fitting that hex nut (C) screws onto
Step 10 – Remove old Z-20 seal
Step 11 – Insert new Z-20 seal
Step 12 – Reinsert brass bushing
Step 13 – Reattach spring clip (9) into groove on float shaft
Step 14 – Reattach housing bracket onto float shaft and tighten hex nut (C)

ORIENTATION OF FLOAT AND PUSH ROD

CONTACTS CLOSE ON LIQUID RISE
(Rod and Float on Opposite Sides)

CONTACTS CLOSE ON LIQUID FALL
(Rod and Float on Same Side)

REPLACING Z-20 SEAL

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Step 6 – Remove hex nut (C)
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Step 14 – Reattach housing bracket onto float shaft and tighten hex nut (C)