



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

PURPOSE OF SWITCH

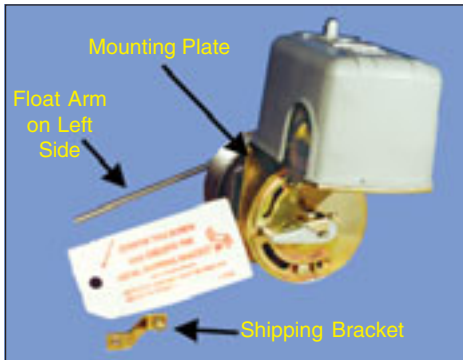
Normally used to automatically control the liquid level, by float movement, within a closed tank. When using switch, the pressure limit within the closed tank should not exceed 50 lbs.

CHANGING ORIENTATION OF FLOAT ARM



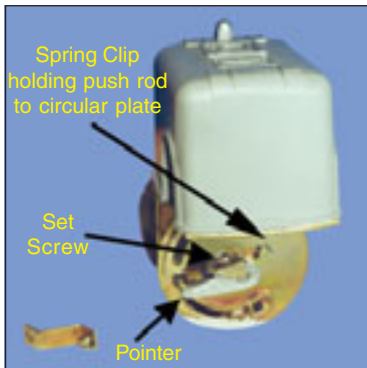
Starting Orientation of Float Arm and Push Rod

Step 1 – Remove shipping bracket

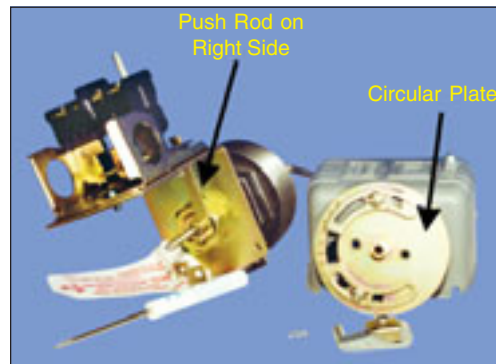


WARNING!
 Switch is shipped with a bracket attached to the mounting plate to prevent the float from moving in the tank during shipment. When installing the unit, this bracket, clearly marked with a tag, **MUST** be removed for float switch to operate.

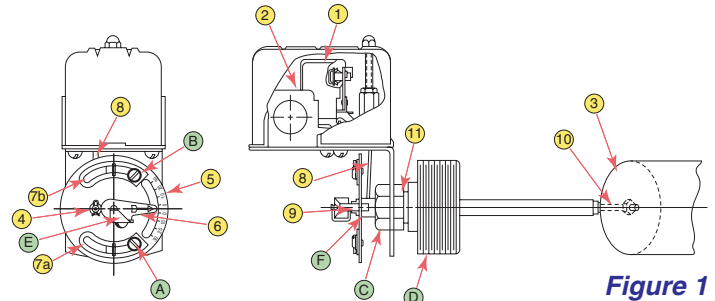
Step 2 – Loosen set screw on pointer



Step 3 – Remove pointer
Step 4 – Remove spring clip to release plate
Step 5 – Remove circular plate

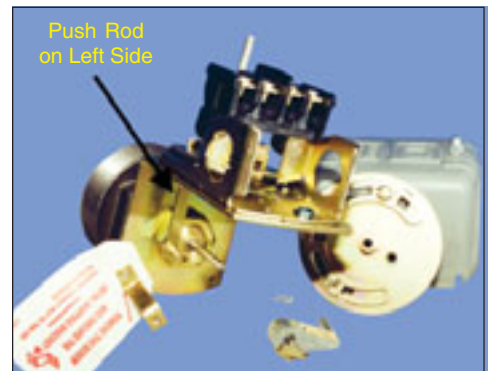


MAJOR PARTS BREAKDOWN



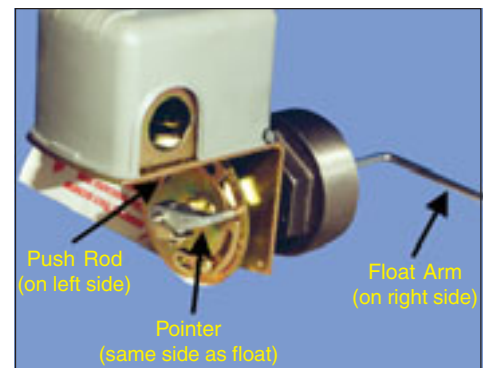
- | | | |
|----------------------------|----------------------------------|--------------------------|
| 1. Contacts | 7. Float Travel Adjusting Strips | A. Adjusting Strip Screw |
| 2. Switch Mechanism | 8. Push Rod | B. Adjusting Strip Screw |
| 3. Float (stainless steel) | 9. Spring Clip (seal) | C. Hex Nut |
| 4. Spring Clip (push rod) | 10. Float Rod (stainless steel) | D. 21/2" Fitting |
| 5. Adjusting Plate | 11. Z-20 Seal | E. Pointer Set Screw |
| 6. Pointer | | F. Brass Bushing |

Step 6 – Move push rod from right to left side
Step 7 – Rotate float arm 180° to right side



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 8 – Reattach circular plate
Step 9 – Reattach spring clip
Step 10 – Reattach pointer and set screw



The pointer points to same side as float arm.

*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)

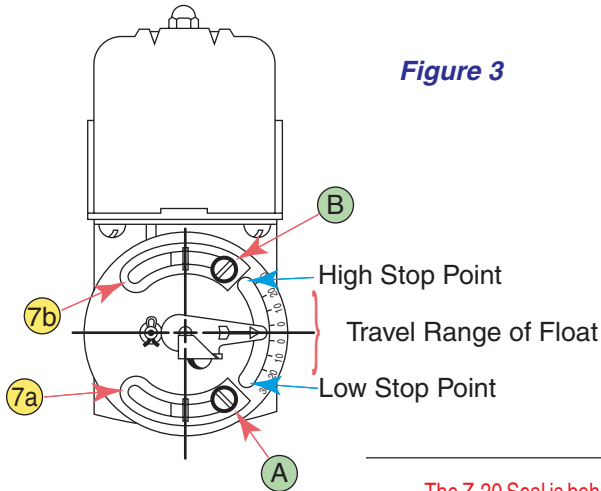


Figure 3

ORIENTATION OF FLOAT AND PUSH ROD

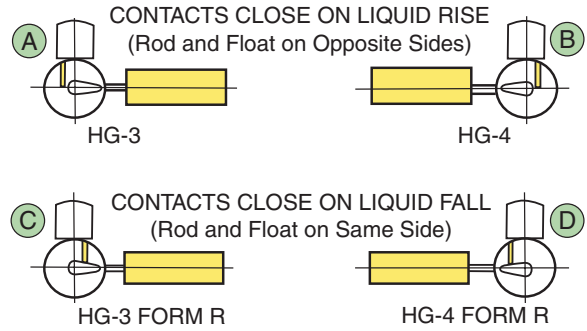


Figure 2

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)

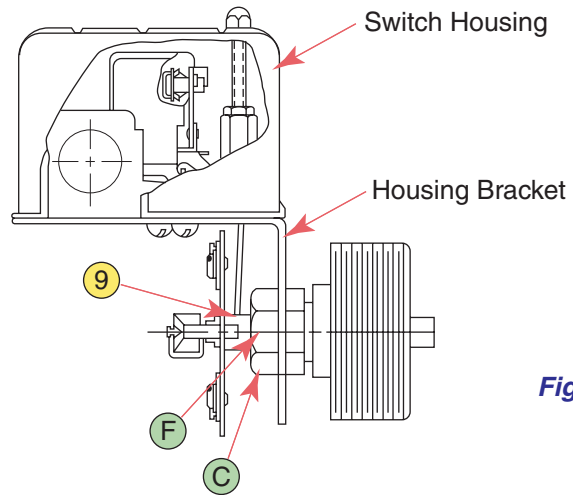


Figure 4

The Z-20 Seal is behind the brass bushing; both fit inside the threaded brass fitting under the hex nut

