

Ref.	Name	Intellifaucet 250				Intellifaucet 375				Intellifaucet 500				Intellifaucet 750					
		1008	1014	1023	1024	1009	1015	1021	1022	1025	1026	1049	1050	1041	1048	1149	1090		
		K Brass	RK Brass	K 303ss	RK 303ss	K Brass	RK Brass	K 303ss	K 303ss	K Brass	RK 303ss	K 303ss	RK Brass	K 303ss	K Brass	RK 303ss	K 303ss		
1	Knob (2)					10001													
3	Step Motor (2)					10003								10535					
4	Motor Screw (8)					10413								10629					
7	Motor Platform					10098								10600 (2)					
9	Coupling (2)					10009								10536					
11	Jam Nut (2)					10011								10510					
12	Compression Fitting	10012	10428	10012	10428	10012	10428	10012	10428	10012	10428	10012	10428	10012	10428	10012	10428		
13	Bonnet (2)	10013	10549	10321A	10321C	10454A	10454C	10483A	10483C										
14	Bonnet O-ring (2)	10014						10323											
15	Stem O-ring (2)					10015								10347					
16	TFE Stem Washer (2)	10016						10324				10466 (4)							
17	Stem (2)	10017	10496	10489		10525						10479							
19	Faucet Assembly	10594	11120	10595	10738	10882	1121	10730	11122										
20	Plunger Assembly (2)	10093C		10326C		10462C						10627C							
23	Plunger Tip (2)					Not available as separate item.								10469					
25	Plate					10025								10474					
26	Knob Extension (2)					10026								10472					
28	Knob Screw (2)					10729													
63	Thermocouple					10063						11060							
	Rebuild Kit	10491	10494	10493			10526		10847										
		Rebuild kits contain stems, plunger assemblies, o-rings, washers and o-ring lube for a complete Intellifaucet.																	

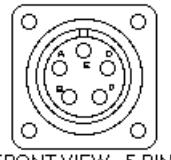
Table 2 Spare parts list.

Symptom	Cause	What to Do
Valves do not open and make stuttering noise after pressing START	Valves were overtightened	Loosen by hand, then close gently.
Nothing happens	Power cords not connected Fuses blown in power supply	Check cables Replace fuses
Random numbers appear	Power supply turned off and on too quickly Electronic component failed	Turn power off, wait 5 seconds, turn power on. Have unit serviced
Valves oscillate	Flow too low.	Increase supply pressure or press Flow Down
Flow won't stop or start	Sticky valves, mineral or rust buildup	Fill faucet with mild acid then rinse

Table 3 Troubleshooting.

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A = +4-20mA remote temp in
B = -4-20 mA signal return
C = Remote Start +5V out
D = Remote Stop +5V out
E = Start and Stop ground

Intellifaucet Owner's Manual

INSTALLATION

Mechanical Connections

Connect hot water to the left side of the Intellifaucet, and cold water to the right. Use ball valves for shutoffs for the hot and cold water. Install a vacuum breaker if your local code requires it. Install water filters if your water has sand, dirt or rust in it. Install check valves on the inlets if connected to a closed piping system. Do not use iron or steel pipes for water supply.

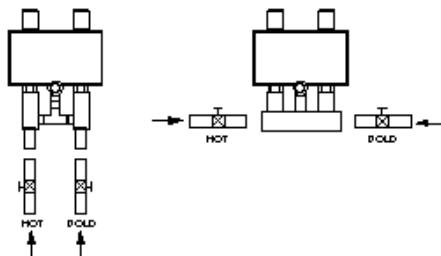


FIGURE 1. Hot on the left, cold on the right, outlet in the center.

Electrical Connections

Connect Intellifaucet to 12V – 24V DC power source, then plug power supply in or turn it on. Appropriate power supplies are included with all Intellifaucets.

Optional Remote Interface (RK Models)

A 4-20mA current source and 2 momentary, dry contact closures (relay or pushbutton) are needed.

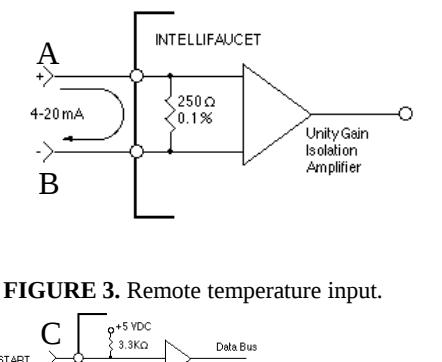


FIGURE 3. Remote temperature input.

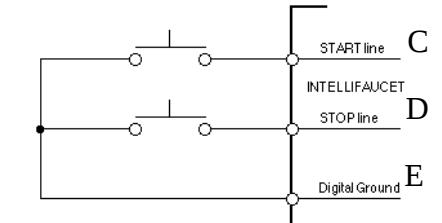


FIGURE 4. Remote Start/Stop inputs



FIGURE 5. Remote Switches.

OPERATION

Manual Control

Rotate knobs on top of the Intellifaucet to open and close the hot and cold water valves. Make sure both are gently closed *before* starting automatic control. Both valves close clockwise (looking from above).

Automatic Control

Press START to begin automatic control. Press STOP to shut off the water. You can change the temperature, flow or timer settings at any time.

The flow setting is a percentage of full flow, not an absolute value. Press START TIMER to start water flow and activate the timer, which will shut off the water after the preset time.

Presets

Press and hold the "Show" keys for 3 seconds until you hear a short beep to save the current temperature, flow or timer settings. Press and hold F/C key for 3 seconds to change and save the F or C mode.

Jumpers

There are three jumpers on the logic board.

JP2: Disable the speaker. Simply remove shunt and put on one pin of jumper for storage.

JP3 and JP4: Let ground float for remote 4-20mA signals.

Remote Automatic Control

Flip the Remote/Local switch to Remote. The Intellifaucet will now use the 4-20mA remote signal as a temperature setpoint. The remote start and stop lines are always active regardless of Remote/Local switch position.

The scaling equations for the remote current signal are:

$$F = 10.7 * \text{mA} - 10.75 \quad +/- 1 F$$

or

$$\text{mA} = 0.0936 * F + 1 \quad +/- 0.2 \text{ mA}$$

$$C = 5.94 * \text{mA} - 23.75 \quad +/- 2 C$$

or

$$\text{mA} = 0.17C + 4 \quad +/- 0.2 \text{ mA}$$

The standard temperature range is 32 – 203 F. The current range is 4-20mA.

Hold the remote START or remote STOP dry contact closed for a minimum of 50 mS to start or stop water flow. Hold both remote START and STOP closed for idle mode. Release both to return to control mode.

CALIBRATION

Each Intellifaucet is calibrated at the factory and rarely needs re-calibration.

Here's how to calibrate the Intellifaucet: Direct the outlet from the Intellifaucet into a 1 quart container equipped with an accurate thermometer. Set the Intellifaucet for 68 F, 20 to 30 percent flow and press START. Let the temperature stabilize. Record the actual temperature. Repeat at 102 F. Press STOP.

To enter calibration mode, press and hold the STOP key for 3 seconds until you hear a short beep and the letters CAL appear on the display. The Zero offset is set with the FLOW keys, and the Gain is set with the TIMER keys.

IMPORTANT: When finished calibrating, press STOP for 3 seconds until you hear a beep to save the calibration values and return to normal mode.

There are 4 possible cases:

1. There is no error. Unit is calibrated.
2. Both errors are the same. Press the FLOW keys (offset) to raise or lower the temperature.
3. The error at the high temperature is more positive than the error at the low temperature. Press the TIMER (gain) key down.
4. The error at the low temperature is more positive. Press the TIMER key up. Repeat as necessary.

MAINTENANCE AND REPAIR

Most problems can be solved by cleaning all of the internal parts with a mild acid solution. An easy way to do this is to uninstall the unit, plug the inlets, lay the unit on its back in a sink or tray, and pour the mild acid into the outlet. Let sit for a few hours, rinse and reinstall. Disassemble the unit and manually clean all the parts if needed.

To disassemble the Intellifaucet, remove parts top down, and assemble bottom up. Please contact us for help at any time.

LIMITED WARRANTY

Hass Manufacturing Company (HMC) warrants the Electronic Control Valve against defects in materials and workmanship for a period of Five (5) years from the date of original retail purchase. If you discover a defect, HMC will, at its option, repair, replace, or refund the purchase price of the product at no charge to you, provided you return it during the warranty period, transportation prepaid, to HMC. Prior to returning the product for warranty consideration, contact Hass Manufacturing Company for a return authorization number and shipping instructions

