

Ref.	Name	Intellifaucet BC250		Intellifaucet BC375		Intellifaucet BC500		Intellifaucet BC750	
		1053 Brass	1056 303ss	1054 Brass	1057 303ss	1055 Brass	1058 303ss	1084 Brass	1099 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
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 1 Spare parts list.

Symptom	Cause	What to Do
Valves do not open and make stuttering noise	Valves were overtightened	Loosen by hand, then close gently.
Nothing happens	Power cords not connected	Check cables
	Fuse blown in power supply	Replace fuse or replace disposable power adaptor.
Random numbers appear	Power turned off and on too quickly	Turn power off, wait 5 seconds, turn on.
Valves cycle wildly or simply stop	Supply to valves wrong	Check plumbing, hot on the left, cold on the right.
Batch errors	Flowmeter worn	Replace flowmeter
	Program chip does not match flowmeter	Replace chip with correct one.

TABLE 3 Troubleshooting.

### Temperature 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 BATCH 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.

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### Intellifaucet Batch and Temperature Control System Owner's Manual

## INSTALLATION

### Mechanical connections

Connect hot water to the left side of the Intellifaucet and cold to the right. Mixed water exits from the front. Install flowmeter on mixed water line. Install check valve after flowmeter. Use ball valves for shutoffs for the hot and cold water. Install water filters if needed. Do not use iron or steel pipes for water supply.

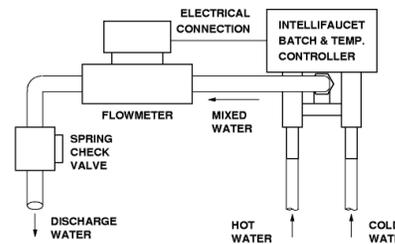


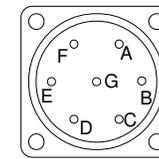
FIG. 1 Batch System Installation.

### Electrical Connections

Plug flowmeter connector into Intellifaucet. Connect Intellifaucet to 12V power source, then plug power supply in or turn it on. Do not plug or unplug flowmeter with power on.

### Remote Temperature Setting

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



- A = +4-20 mA remote temp. signal in.
- B = - 4-20 mA remote temp. signal out
- C = Start Batch +5V out
- D = Stop Batch +5V out
- E = Ground for C, D, and F
- F = Flowmeter 9V DC power
- G = Flowmeter pulse signal

FIG. 2 Remote connections

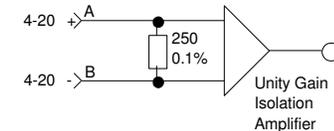


FIG. 3 Remote Temperature Input

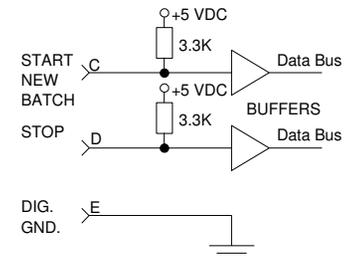
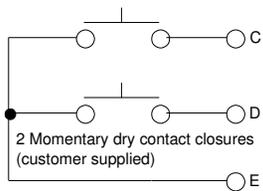
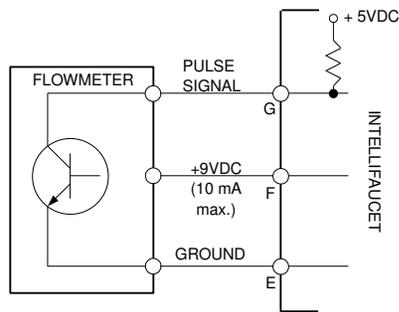


FIG. 4 Remote Start and Stop Inputs



**FIG. 5** Remote Switches



**FIG. 6** Flowmeter connections

## OPERATION

### Manual Control

Rotate the knobs on top of the Intellifaucet counter-clockwise to open and clockwise to close the hot and cold water valves. Make sure both are closed gently before starting automatic control.

### Automatic Control

Press START to begin automatic control. The hot and cold valves will turn on and then adjust to achieve the correct temperature. You may change the temperature, flow or batch settings at any time. Press STOP to shut off the water. Press START NEW BATCH to begin a

batch cycle. PAUSE BATCH shuts off the water but retains the batch quantity information. RESUME BATCH turns the water on and continues the batch cycle. STOP cancels the batch cycle.

The flow setting is a percentage of full flow, dependent on water pressure and the complete plumbing system.

### Remote Automatic Control

Change the 4-20 mA current value to change the temperature. The scaling equations for the current signal are:

$$F = 10.7 * \text{mA} - 10.75 \pm 1F$$

or

$$\text{mA} = 0.0936 * F + 1 \pm 0.2 \text{ mA}$$

The standard temperature range is 32 - 203 F. The current range is 4 - 20 mA. Hold the remote START NEW BATCH or remote STOP closed for a minimum of 50 mS to start or stop a batch cycle.

### Maintenance and Repair

Most problems can be solved by cleaning all of the internal parts and re-assembling the unit. Use a mild acid solution to remove mineral deposits.

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

Factory service on all products is available. Please contact us for a Return Authorization Number before sending anything back. Estimates are free.

