

Hass Manufacturing Company
 371 NY Highway 351, Averill Park, NY 12018 USA
 Tel (518) 674-8151 Fax (518) 674-8157
 www.hassmfg.com

**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.

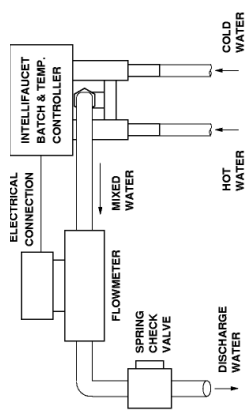


FIG. 1 Batch System Installation.

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

Ref.	Name	Intellifaucet BC250 1053 Brass 1056 303ss 1054 Brass	Intellifaucet BC375 1057 303ss 1055 Brass	Intellifaucet BC500 1058 303ss 1084 Brass	Intellifaucet BC750 1099 303ss
1	Knob (2)		10003		10535
3	Step Motor (2)		10413		10629
4	Motor Screw (8)		10098		10600 (2)
7	Motor Platform		10009		10536
9	Coupling (2)		10011		10510
11	Jam Nut (2)				
12	Compression Fitting	10012	10428	10012	10428
13	Bonnet (2)	10013	10549	10321C	10454C
14	Bonnet O-ring (2)	10014		10454A	10483A
15	Stem O-ring (2)		10015	10323	
16	TFE Stem Washer (2)	10016		10324	10466 (4)
17	Stem (2)	10017	10496		10479
19	Faucet Assembly	10594	11120	10595	10738
20	Plunger Assembly (2)	10093C		10882	1121
23	Plunger Tip (2)			10326C	10462C
25	Plate				10627C
26	Knob Extension (2)		10025		10469
28	Knob Screw (2)		10026	10729	10474
63	Thermocouple	10491	10494	10493	10526
	Rebuild Kit				11060
		Rebuild kits contain stems, plunger assemblies, o-rings, washers and o-ring tube 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
Random numbers appear	Fuse blown in power supply	Replace fuse or replace disposable power adaptor.
Valves cycle wildly or simply stop	Power turned off and on too quickly	Turn power off, wait 5 seconds, turn on.
Batch errors	Supply to valves wrong	Check plumbing, hot on the left, cold on the right.
	Flowmeter worn	Replace flowmeter
	Program chip does not match flowmeter	Replace chip with correct one.

TABLE 3 Troubleshooting.

Temperature Calibration

(There is no batch quantity calibration)
 Each Intellifaucet is calibrated at the factory and rarely needs re-calibration.

Direct the outlet from the Intellifaucet into a 1 quart container equipped with

momentary dry contact closures (relay or pushbutton) are needed.

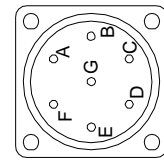


FIG. 2 Remote connections

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

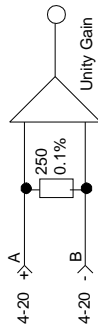


FIG. 3 Remote Temperature Input

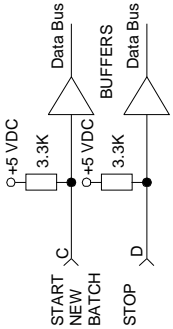


FIG. 4 Remote Start and Stop Inputs

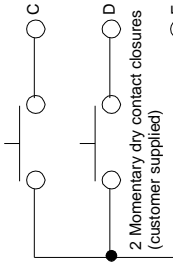


FIG. 5 Remote Switches

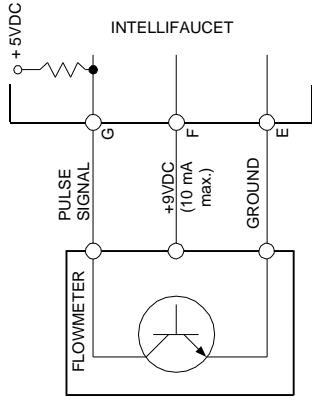


FIG. 6 Flowmeter connections

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:

$$F = 9.2 * \text{mA} - 1.3 \pm 1.4F$$

or

$$\text{mA} = 0.11 * F + 0.14 \pm 0.2 \text{ mA}$$

The standard temperature range is 40 - 140 F, so the active current range is 4.5 - 15.5 mA. Custom ranges are available on request.

Hold the remote **START NEW BATCH** or remote **STOP** closed for a minimum of 20 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.

