

# Thermostatic Mixing Valve

Model Numbers: 131-ABNF, 131-ABRCF, 131-CABNF, 131-CABRCF, 131-FMAB, 131-FMABRCF, 131-CFMAB, 131-CFMABRCF  
Size: 3/8" (10 mm) Compression

## Description

The 131 Series 3/8" (10 mm) compression fitting thermostatic mixing valves maintain and limit hot water to a desired selectable temperature between 80°F and 120°F (27°C and 49°C), with flow rates as low as 0.35 gpm (1.3 LPM). The superior flow characteristics of these valves provide accurate temperature control ( $\pm 3^\circ\text{F}$ ) with low pressure drop. As an added feature, the 131 Series incorporates dual check valves to protect against cross-flow and integral screens to filter out debris.

## Applications

A thermostatic mixing valve is intended for under-sink installation to control the hot water temperature and prevent accidental scalding. The water temperature must be adjusted by the installer using a thermometer to measure the hot water temperature at the faucet outlet. Maximum temperature of 110°F (43°C) is recommended.

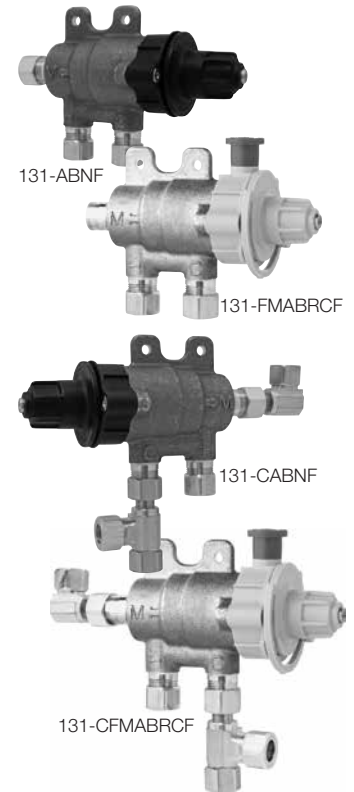
## Application Note

Delivery of water to fixtures intended for hand washing should always be controlled by valves listed to ASSE 1070. Thermostatic valves provide the user with both thermal shock and scald protection. These valves should always be adjusted after installation to the desired temperature.

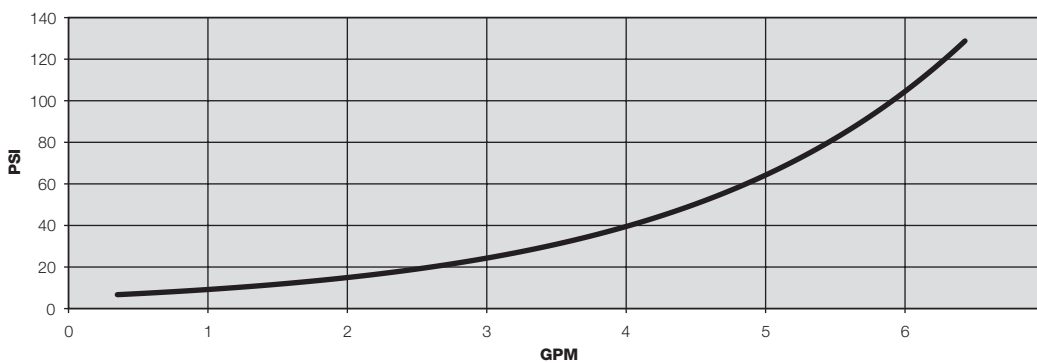
## Pressure – Temperature

Minimum Supply Pressure:	30 psi (207 kPa)
Hot Inlet Temperature:	120°F – 180°F (49°C – 82°C)
Cold Inlet Temperature:	39°F – 80°F (4°C – 27°C)
Minimum Inlet Temperature Differential:	20°F (7°C)
Temperature Out:	80°F – 120°F (27°C – 49°C)
Factory Setting:	100.4°F
Maximum Pressure:	125 psi (8.6 bar)

The pressure differential must be less than 20% between the hot and cold inlet supplies.



**Figure 1. Flow Capacity: Pressure vs. GPM**



Approval: CSA B125 Certified Listing: ASSE 1070 Certified  
Compliant to: CA AB1953, VT S.152,  
and Reduction of Lead in Drinking Water Act S.3874



## Installation Instructions

The 131 Series installs easily onto most faucets. When installing this thermostatic mixing valve, be sure to follow all local plumbing codes for your application.

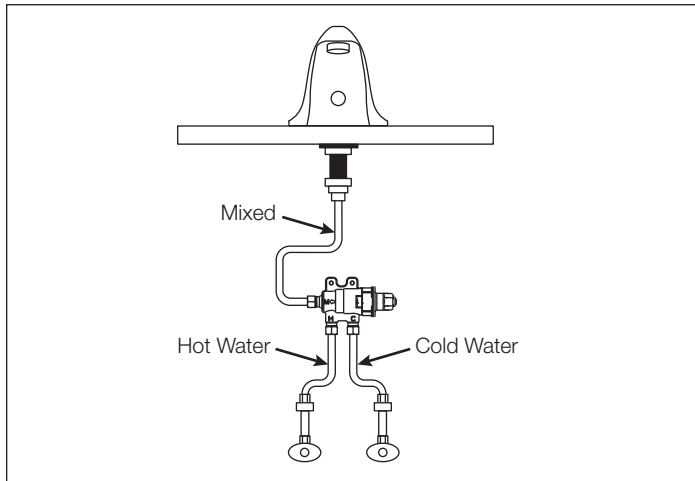
1. Shut off the supply valves and remove any existing piping between the supply valves and the faucet.
2. Connect the 131 Series to the supply valves and the faucet. Typical connections are shown in Figures 2 and 3 below.
3. Turn on the supply valves.
4. Follow the instructions on page 3 of this manual, Temperature Adjustment, to obtain the desired outlet water temperature.

**Note 1:** When using copper tubing, do not extend the tubing more than 3/16" beyond the compression ferrule. When installing with non-rigid supply hose connections, anchor the 131 Series thermostatic valve to the wall using the provided spacer to prevent any unintentional movement.

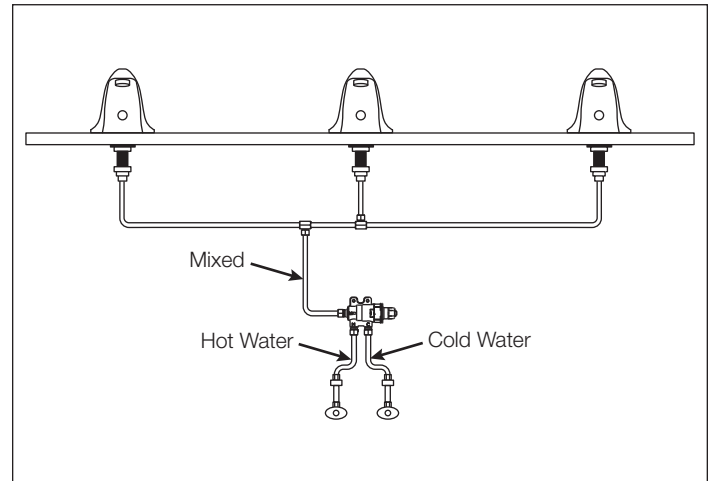
**Note 2:** Do not use pipe dope/paste on valve thread connections.

**Figure 2. Typical Installations, 131-ABNF, 131-ABRCF, 131-FMAB, and 131-FMABRCF**

Single Sensor Faucet:

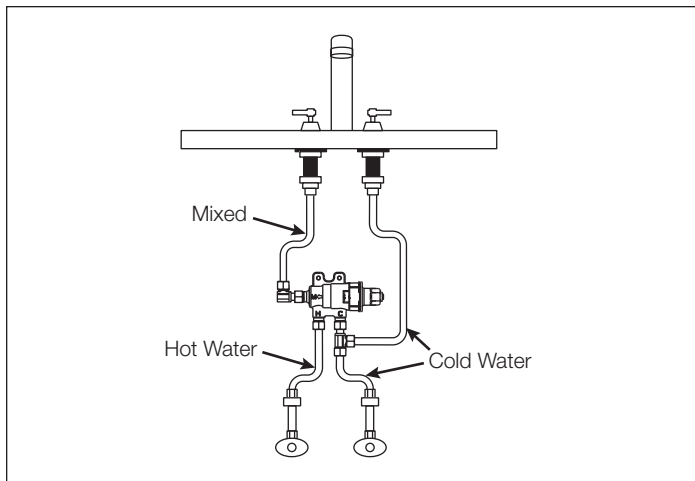


Multiple Sensor Faucets:

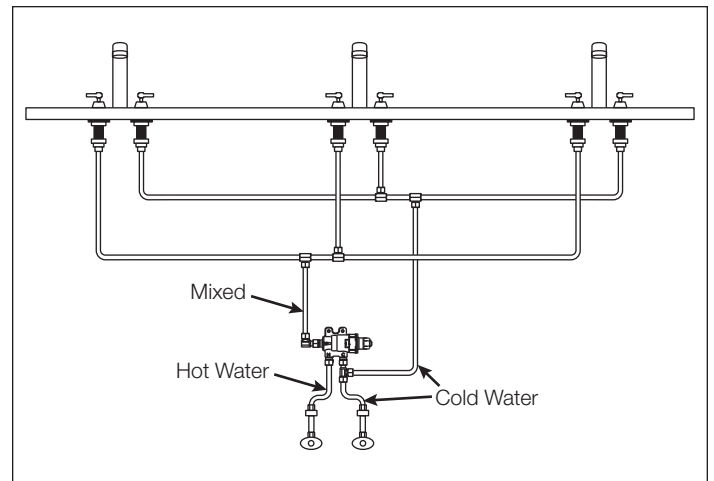


**Figure 3. Typical Installations, 131-CABNF, 131-CABRCF, 131-CFMAB, and 131-CFMABRCF**

Single Two-Handle Faucet:



Multiple Two-Handle Faucets:



**Temperature Adjustment – Models 131-ABNF, 131-ABRCF, 131-CABNF, 131-CABRCF**

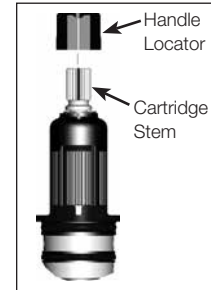
1. Loosen the cap screw until the handle turns freely (do not remove the screw) with a 3mm (7/64") hex wrench.
2. As a safety feature the cap must be partially lifted from the valve to adjust temperature.
3. With the faucet turned on and in the full hot position, adjust the setting of the valve to obtain the desired outlet water temperature. Turn clockwise to decrease temperature.
4. Lower cap and tighten cap screw.
5. Check outlet temperature.

**Note 1:** The hot water should be allowed to flow for two or three minutes prior to adjusting the valve setting in order to have the hottest inlet temperature flowing through the valve.

**Note 2:** If Handle Locator becomes separated from Cartridge Stem, look for marking on Cartridge Stem, align with groove on Handle Locator, and reassemble as shown in Detail A.



**Detail A**

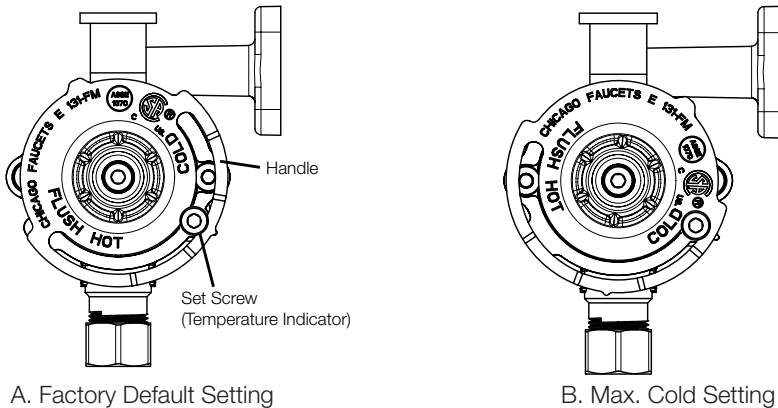


**Figure 4. Temperature Adjustment, Models 131-ABNF, 131-ABRCF, 131-CABNF, and 131-CABRCF**

**Temperature Adjustment – Models 131-FMAB(RCF), 131-CFMAB(RCF)**

1. Loosen the Set Screw (see Figure 5) until the Handle turns freely (do not remove the screw) with a 3mm (7/64") hex wrench.
2. With the faucet turned on and in the full hot position, turn the Handle to obtain the desired outlet water temperature. Turn clockwise to decrease temperature.
3. Check outlet temperature.
4. When desired water temperature is achieved, tighten the Set Screw to secure the Handle. Tightening the Set Screw provides tamper resistance and prevents unauthorized adjustment of the water temperature.

**Note 1:** The hot water should be allowed to flow for two or three minutes prior to adjusting the valve setting in order to have the hottest inlet temperature flowing through the valve.



**Figure 5. Temperature Adjustment, Models 131-FMAB(RCF), 131-CFMAB(RCF)**

**Pipe Flush Mode – Models 131-FMAB(RCF), 131-CFMAB(RCF)**

131-FM and 131-CFM mixing valves include a special Pipe Flush Mode that allows maintenance personnel to flush the system with high-temperature water.

**IMPORTANT**

**Note that putting the 131 Series mixing valve in Pipe Flush Mode disables anti-scald protection as required by ASSE1070. Pipe Flush Mode is for use by authorized maintenance personnel only. Improper use of this mode may result in scalding or other serious injury. Under no circumstances should the mixing valve be left in Pipe Flush Mode after system flushing is complete.**

1. Turn off the cold water supply at the supply stop.
2. Loosen the Set Screw (see Figure 5A) until the Handle turns freely (do not remove the screw) with a 3mm (7/64") hex wrench.
3. Remove the Safety Lock Cap and depress the Safety Button to disengage the safety lock as shown in Figure 6.
4. Turn the Handle counter-clockwise to FLUSH position (Figure 6). Valve is now in Pipe Flush Mode.
5. Perform system flush as needed.
6. **RETURN HANDLE TO SAFE TEMPERATURE SETTING:** Turn the Handle clockwise to exit Pipe Flush Mode. Safety Lock will re-engage. Continue rotating the Handle clockwise to desired water temperature setting (see Figure 5 for standard settings).
7. Tighten the Set Screw to secure the Handle. Tightening the Set Screw provides tamper resistance and prevents unauthorized adjustment of the water temperature.
8. Replace the Safety Lock Cap.
9. Turn on the cold water supply. Check water temperature at the faucet outlet and adjust the Handle if necessary to achieve the desired water temperature.

**ATTENTION INSTALLER:** After installation, please leave this Instruction Sheet for occupant's information.

**IMPORTANT:** Inquire with governing authorities for local installation requirements.

**Care and Maintenance**

All Chicago Faucets fittings are designed and engineered to meet or exceed industry performance standards. Care should be taken when cleaning this product. Do not use abrasive cleaners, chemicals or solvents as they can result in surface damage. Use mild soap with warm water for cleaning and protecting the surface of Chicago Faucets fittings.

*For additional technical assistance, call 800/TEC-TRUE (800-832-8783) or visit our website at [chicagofaucets.com](http://chicagofaucets.com).*

**CHICAGO FAUCETS LIMITED WARRANTY**

**TO WHOM DOES THIS WARRANTY APPLY?** — The Company extends the following limited warranty to the original user only.

**WHAT DOES THIS WARRANTY COVER AND HOW LONG DOES IT LAST?** This warranty covers the following Commercial Products: SH-PB Shower Fittings.

**LIFETIME FAUCET WARRANTY** — The "Faucet," defined as any metal cast, forged, stamped or formed portion of the Product, not including electronic or moving parts or other products separately covered by this Limited Warranty or water restricting components or other components, is warranted against material manufacturing defects for the life of the Product.

**FIVE YEAR FAUCET WARRANTY** — Certain Products and portions of the Product are warranted against material manufacturing defects for a period of five (5) years from the date of Product purchase. Products warranted against material manufacturing defects for a period of five (5) years from the date of Product purchase are referred to by the product numbers 42X, 43X, 15XX and E-Tronic™ - 4X, 5X, 6X, 7X, 8X and 9X. All zinc die cast portions of Product are warranted against material manufacturing defects for a period of five (5) years from the date of Product purchase.

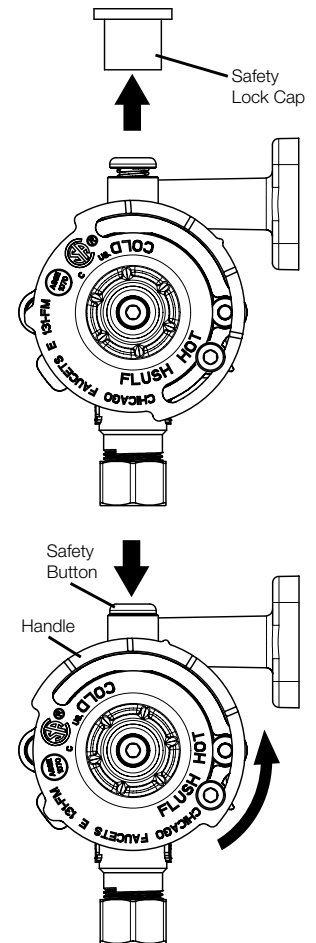
**THREE YEAR ELECTRONICS WARRANTY** — Electronic components, including the solenoid, are warranted for three (3) years from the date of installation.

**FIVE YEAR CARTRIDGE WARRANTY** — The "Cartridge", defined as the metal portion of any Product typically referred to by the product numbers containing 1-099, 1-100, 1-310, 377X, 217X and 274X, excluding any rubber or plastic components, is warranted against material manufacturing defects for a period of five (5) years from the date of Product purchase. All Cartridges included in the Company's Single Control or Shower Products also are warranted against material manufacturing defects for a period of five (5) years from the date of Product purchase.

**ONE YEAR FINISH WARRANTY – COMMERCIAL** — For Products used in commercial applications, the finish of the Product is warranted against material manufacturing defects for a period of one (1) year from the date of Product purchase.

**OTHER WARRANTIES** — All other Products not covered above are warranted against material manufacturing defects for a period of one (1) year from the date of Product purchase.

Other restrictions and limitations apply. For complete warranty details, call Chicago Faucets Customer Service at 847-803-5000 or visit [chicagofaucets.com](http://chicagofaucets.com).



**Figure 6. Pipe Flush Mode, Models 131-FMAB(RCF), 131-CFMAB(RCF)**

The Chicago Faucet Company  
 2100 South Clearwater Drive  
 Des Plaines, IL 60018  
 Phone: 847/803-5000  
 Fax: 847/803-5454  
 Technical: 800/832-8783  
[www.chicagofaucets.com](http://www.chicagofaucets.com)