

Installation Instructions

Two-Port / Three-Port Digital Valve

Record your model number:
Noter le numéro de modèle:
Anoté su número de modelo: _____

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KOHLER[®]

Thank You for Choosing KOHLER







Need help? Contact our Customer Care Center.

- USA/Canada: 1-800-4KOHLER (1-800-456-4537)
- Mexico: 001-800-456-4537
- For service parts information, visit kohler.com/serviceparts.
- For care and cleaning information, visit kohler.com/clean.
- Patents: kohlercompany.com/patents

Warranty

This product is covered under the KOHLER® **Electronic Faucets, Valves, and Controls Five-Year Limited Warranty**, found at kohler.com/warranty. For a hardcopy of warranty terms, contact the Customer Care Center.

Important Instructions

-  **WARNING: When using electrical products, basic precautions should always be followed, including the following:**
-  **DANGER: Risk of electric shock.** Connect only to a circuit protected by a Ground-Fault Circuit-Interrupter (GFCI)*.
-  **WARNING: Risk of electric shock.** A qualified electrician must route all electrical wiring for the product. Improper installation will create an electrical hazard and may not comply with local building and electrical codes.
-  **WARNING: Risk of electric shock.** Disconnect the power before servicing.
-  **WARNING: Unauthorized modification may cause poor performance and will void the warranty.** Do not make modifications to the product other than instructed by this guide, as this could adversely affect product performance. Kohler Co. shall not be liable under its warranty or otherwise for personal injury or damage caused by any such unspecified modification.
-  **WARNING: Risk of injury or property damage.** Read all instructions thoroughly before beginning installation.

Follow all local plumbing and electrical codes.

NOTE: Provide generous, unrestricted service access to the valve. Provide access for servicing the valve, power supply unit, and digital control. This access must be located immediately next to the valve. Refer to the roughing-in information.

*Outside North America, this may be known as a Residual Current Device (RCD).

Specifications

Pressures

Maximum Static Pressure	145 psi, 1000 kPa, 10 bar
Maximum Dynamic Pressure	125 psi, 860 kPa, 8.6 bar
Supply Pressure Differential*	Max 5 psi, 34 kPa, 0.34 bar (Equal pressures recommended.)
Minimum Flow Rate (less than 72 psi dynamic pressure, 500 kPa maintaining pressure)	0.9 gal/min (3.5 l/min)
Minimum Flow Rate (greater than 72 psi dynamic pressure, 500 kPa maintaining pressure)	1.4 gal/min (5.25 l/min)
Maximum Flow Rate	9.5 gal/min (36 l/min) per outlet, 12 gal/min (45.5 l/min) total at 45 psi, 310 kPa, 3.1 bar

This product is for use with showerheads rated at 0.9 gal/min (3.5 l/min) or higher.

Temperatures

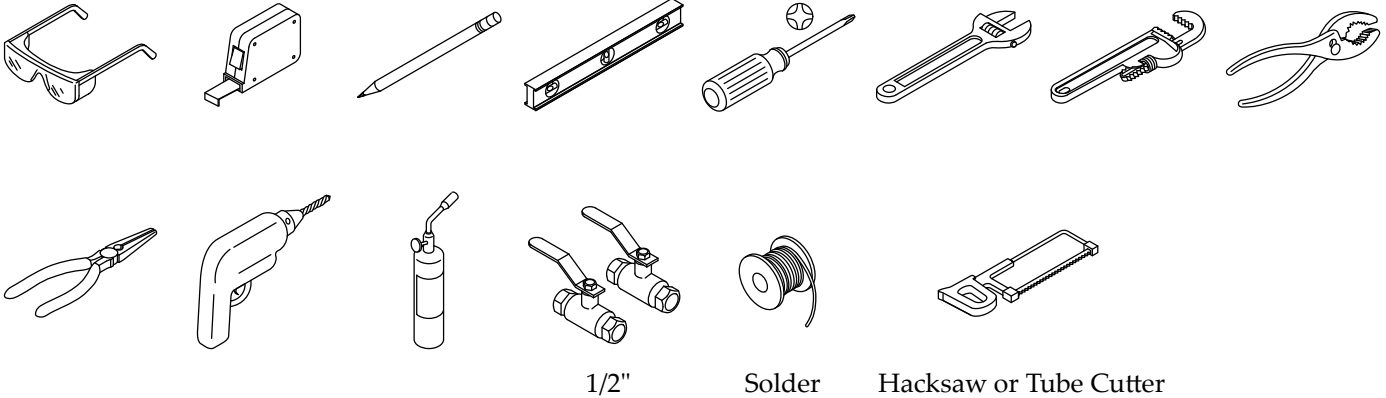
Programmable Temperature	Max 120°F (49°C), Min 59°F (15°C) <i>Full cold may also be selected.</i>
Default Temperature at Start-up	100°F (38°C)
Cold Inlet Temperature	34°F (1°C) - 80°F (29°C) and 3.6°F (2°C) below programmed outlet temperature
Hot Inlet Temperature	120°F (49°C) - 149°F (65°C)
Temperature Stability at Recommended Supply Conditions	+/- 1.6°F (1°C) at 86°F (30°C) - 118.4°F (48°C)
Ambient Temperature	Greater than 34°F (1°C), Max 122°F (50°C)
Maximum Relative Humidity	95% noncondensing

Electrical

Electrical Rating	120 V, 1.0 A, 60 Hz
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*In commercial applications where there is a large difference in hot and cold supply pressures or frequent fluctuation in either supply line is anticipated, it is strongly recommended that pressure regulators be installed.

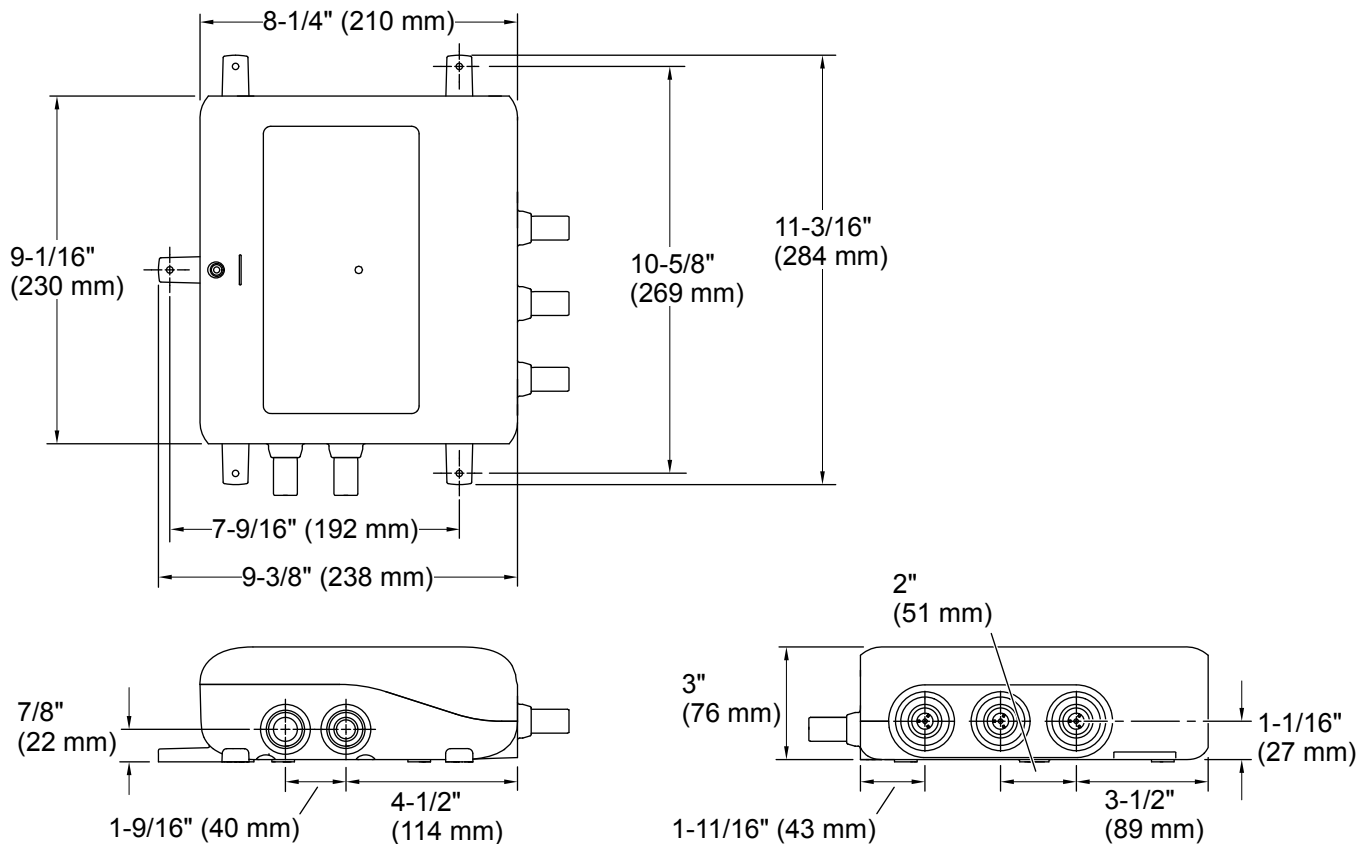
Tools and Materials



Plus:

- (2) 1/2" Union Connectors for valve inlets
- Wood and Framing Materials
- Inlet tube size recommended: 1/2" Copper/CPVC or 3/4" PEX
- Outlet tube recommended depends on port requirement:
 - Less than 5 gal/min: 1/2" copper/CPVC/PEX,
 - Greater than 5 gal/min: 1/2" copper/CPVC or 3/4" PEX

Before You Begin



⚠ CAUTION: Risk of product damage. Do not apply excessive heat near the valve or apply flux or acids directly onto the valve. This valve contains plastic and rubber components that will melt if heat is directly applied.

NOTICE: Do not install the valve in any location where the temperature may exceed 122°F (50°C). The valve and its integrated power supply are rated to operate in temperatures up to 122°F (50°C).

IMPORTANT: Read these instructions and determine the locations for all required components before beginning installation.

This valve is not intended for single-outlet use unless pairing two outlets for a high flow bath filler.

For optimum performance, dedicated water supply lines are recommended.

If the water supply is a significant distance from the valve, it is recommended that the water supply tube size be increased by 1/4" to offset the piping loss. If necessary, review with your Plumbing Professional.

If possible, install the valve before installing the digital control(s).

If possible, flush all piping thoroughly before installing the valve. If the pipes are flushed after the valve is installed, clean the inlet screens before using the system.

A qualified electrician should install a 120 V GFCI electrical outlet, within the stud framing, above the valve.

If possible, install the electrical outlet before installing the valve.

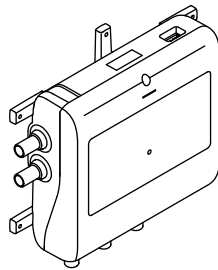
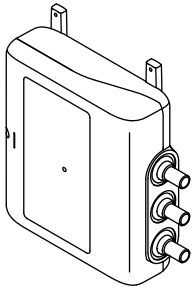
This valve complies with ASME A112.18.1/CSA B125.1, ASSE 1016/ASME A112.18.1016/CSA B125.16, UL1951. This valve is listed with IAPMO/cUPC, and UL.

The digital valve is equipped with WiFi and Bluetooth[®] technology allowing for communication through the Kohler Kconnect App or a wireless remote.

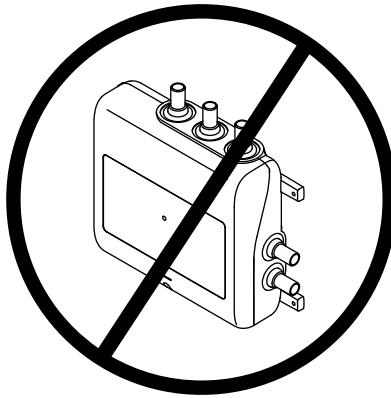
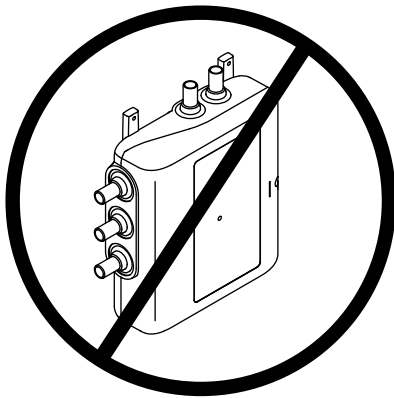
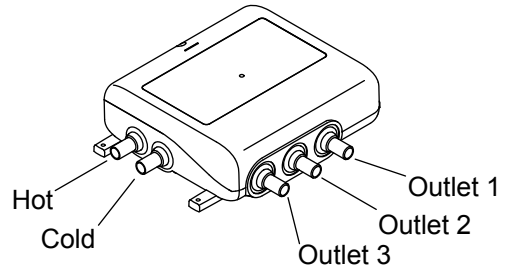
The BLUETOOTH[®] word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Kohler Co. is under license. Other trademarks and trade names are those of their respective owners.

Mounting Configurations

Vertical Mount



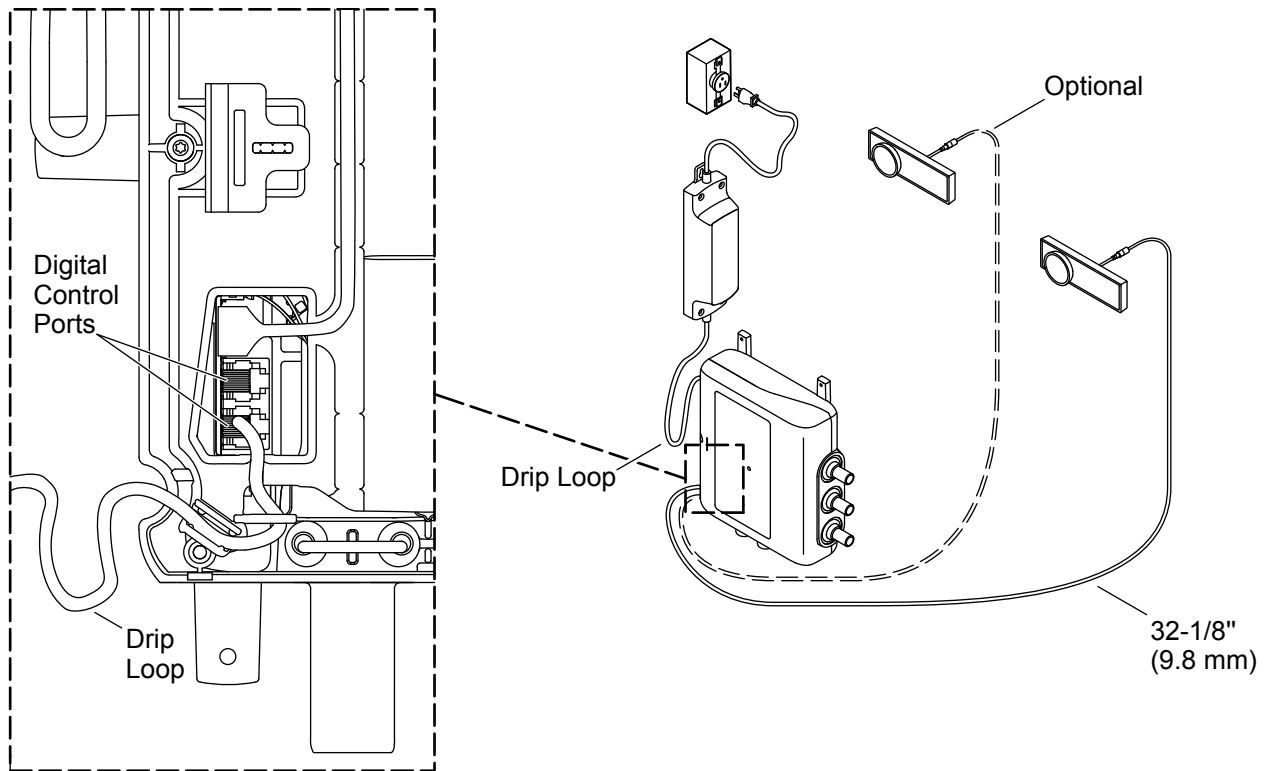
Horizontal Mount



⚠ CAUTION: Risk of product damage. Do not mount the valve with the inlet or outlet ports positioned above the product. Ports must be installed as shown to optimize water flow.

NOTE: Vertical and horizontal mounting options are shown above.

1. Plan the Component Locations

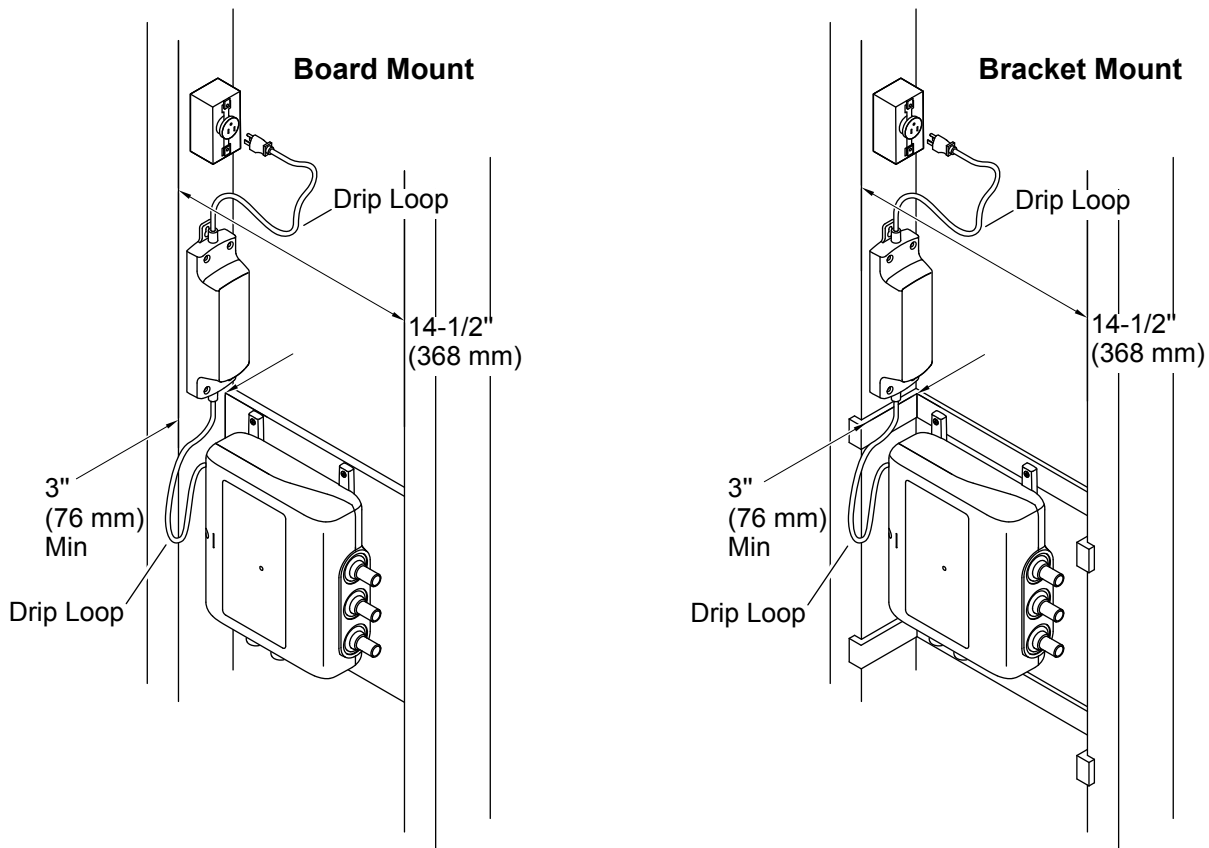


NOTE: Only one digital control is required inside of the showering space. A second digital control or ON/OFF remote can be installed outside of the shower area.

NOTE: Your digital control may appear different than the one illustrated, however, the installation procedure for the valve remains the same. For the digital control installation, please follow the instructions packed with the digital control.

- Install a 120 V GFCI electrical outlet within the stud framing, near the valve. Locate the electrical outlet above the valve and power supply.

2. Prepare the Site



IMPORTANT! The power supply must be installed within the stud framing, near the valve. Verify that the power supply is installed above the valve and below the electrical outlet.

NOTICE: Do not install the valve in any location where the temperature may exceed 122°F (50°C).

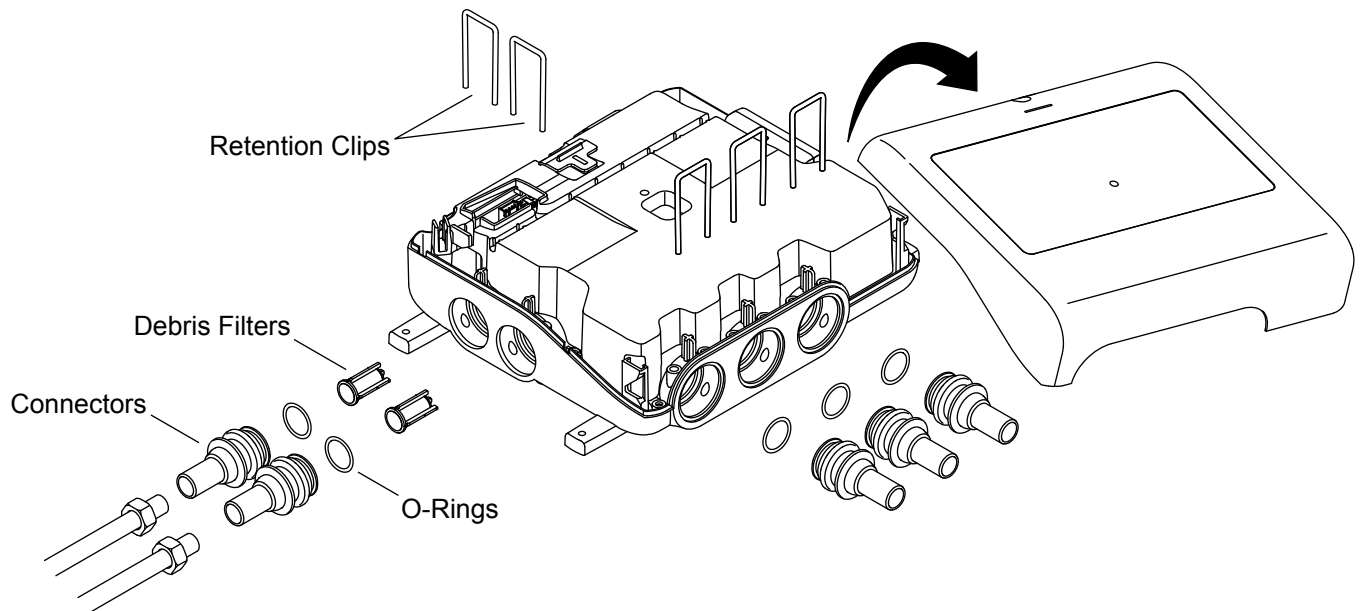
NOTICE: This product can be mounted on a rigid backer board or telescopic brackets (not supplied).

NOTE: Horizontal installation within a stud cavity is shown. The valve can also be mounted vertically or mounted to a horizontal surface. Refer to the "Mounting Configurations" section.

NOTE: This product is designed to fit within a minimum 14-1/2" (368 mm) stud cavity. Ensure that there is a minimum 3" (76 mm) depth clearance.

- Install a 120 V GFCI electrical outlet within the stud framing, near the valve. Locate the electrical outlet above the valve and power supply.

3. Make the Connections



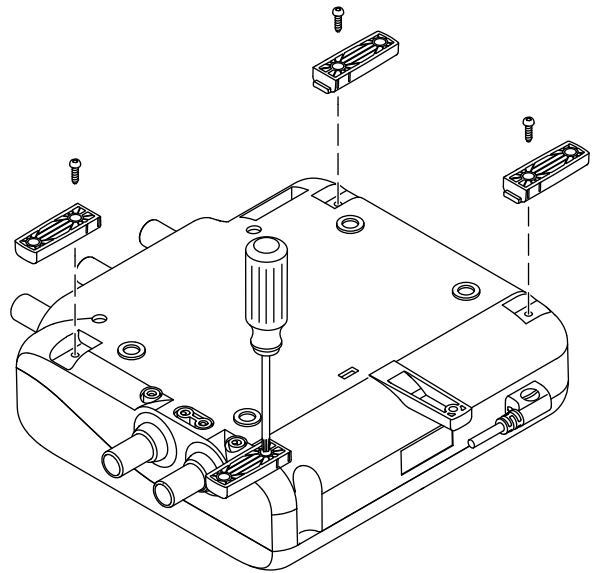
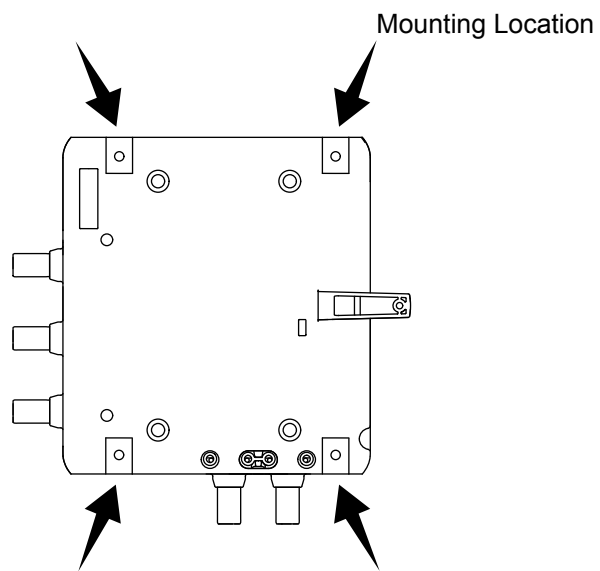
⚠ CAUTION: Risk of product damage. Do not apply excessive heat near the valve or apply flux or acids directly onto the valve. This valve contains plastic and rubber components that will melt if heat is directly applied.

NOTE: If any outlets are not used, they must be capped or isolated using appropriate fittings.

NOTE: Do not use ammoniac flux types for soldering joints as these can cause corrosion.

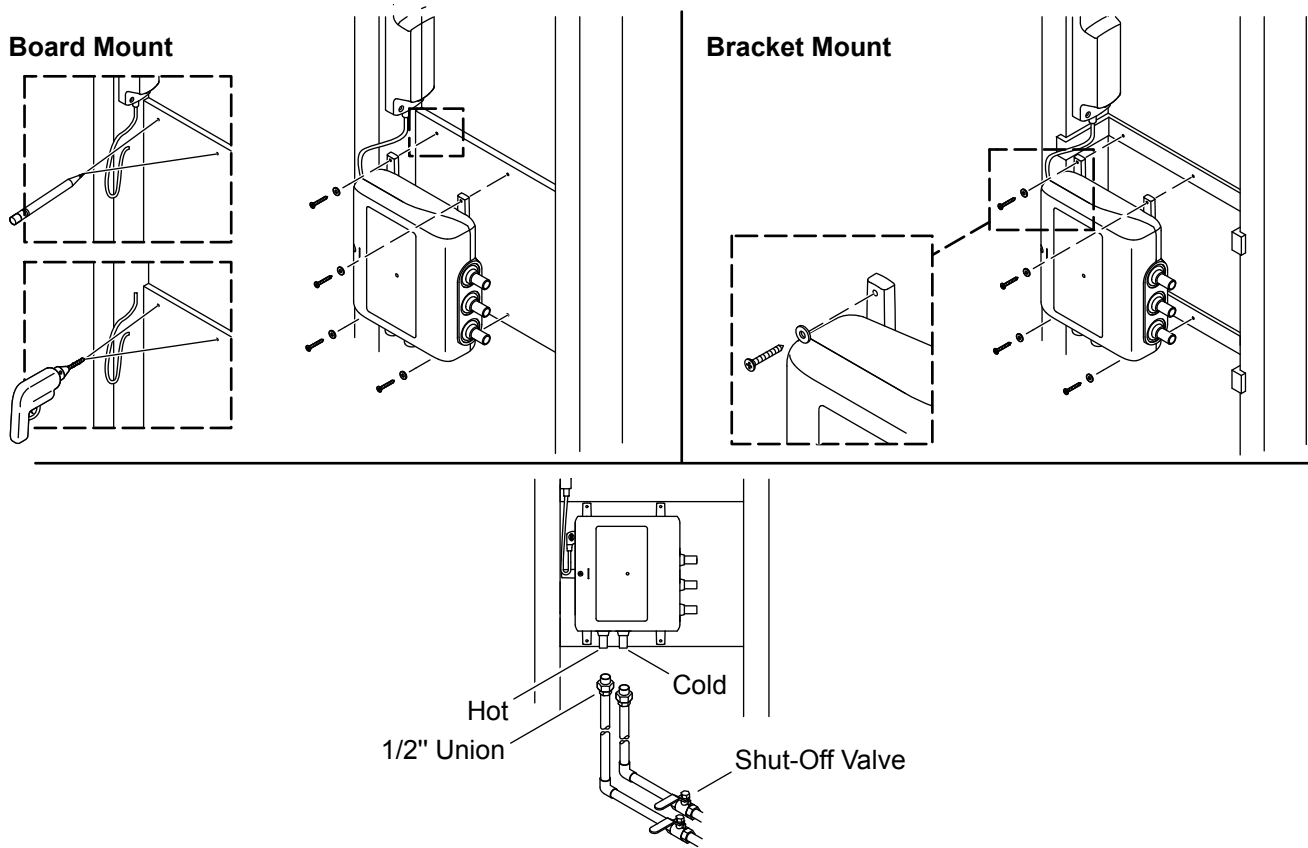
- Unthread the screw securing the cover to the valve. Remove the cover and set aside.
- Lift and remove the retention clips.
- Remove the connectors.
- Remove the O-rings.
- Use needlenose pliers to remove the debris filters from the hot and cold valves.
- Slide the copper or brass fitting onto the inlet/outlet tube.
- Solder the inlet/outlet tube to the copper or brass fittings. Allow to cool completely.
- Reinstall the O-ring onto the inlet/outlet tube.
- For inlet tubes only:** Insert the debris filters into the end of the inlet tube.
- Reinstall the connectors to the valve. Secure with the retention clips. Verify that the clips are fully inserted.
- Repeat for all inlet/outlet tubes as required.
- Replace the cover and secure with the screws.

4. Install the Mounting Feet



- Rotate the valve to access the mounting feet locations.
- Secure the mounting feet with the screws provided.

5. Install the Valve

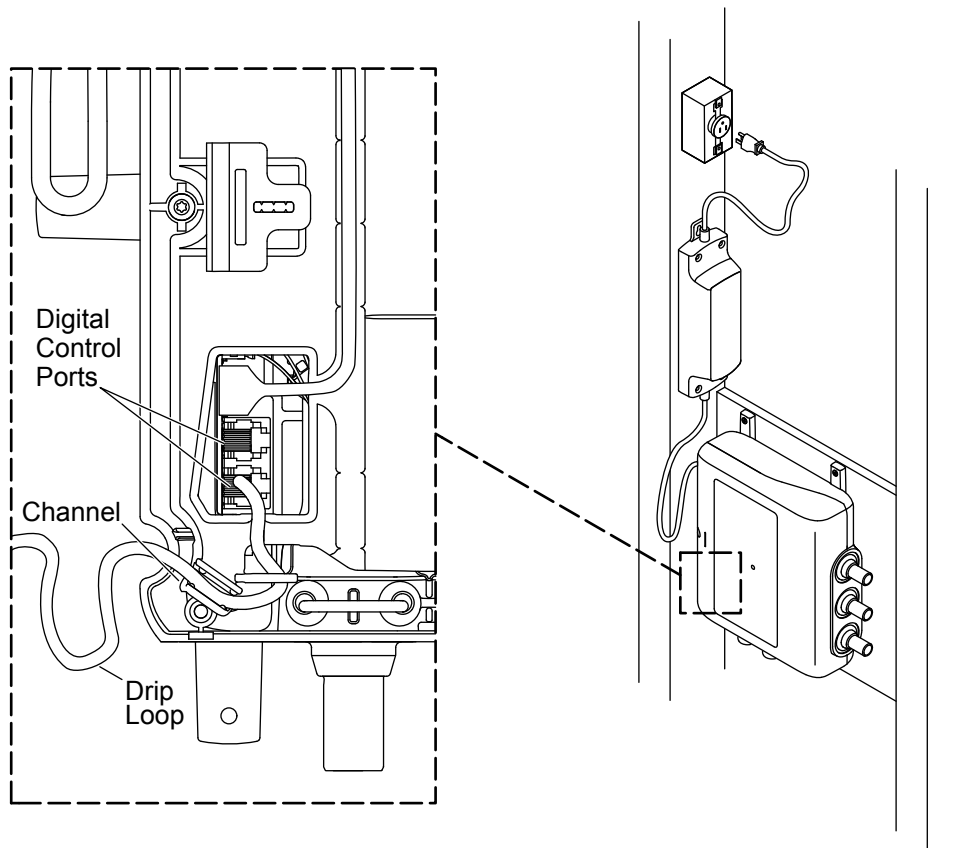


- Route 1/2" (3/4" PEX) dedicated water supply lines. Use unions to install removable pipe segments to the valve inlets to allow access for periodic cleaning of the inlet screens.
- Install shut-off valves in the supply lines before the valve.
- Hold the valve up to the installation location. Verify fit and mark the hole locations.
- Predrill the holes.
- Secure the valve with the washers and screws. **Do not overtighten!**

IMPORTANT! When routing piping, the number marked at each valve outlet must correspond to the appropriate shower fitting for preprogrammed or custom showering experiences to function properly. Refer to the Homeowners Guide for more information.

- Route the piping from the valve outlets to the appropriate shower fitting following the recommended pipe fitting sizes listed.
- Connect the hot and cold supply lines to the appropriate valve inlets. Hot is red and marked with "HOT," cold is blue and marked with "COLD."
- Secure all piping to the framing.

6. Complete the Installation

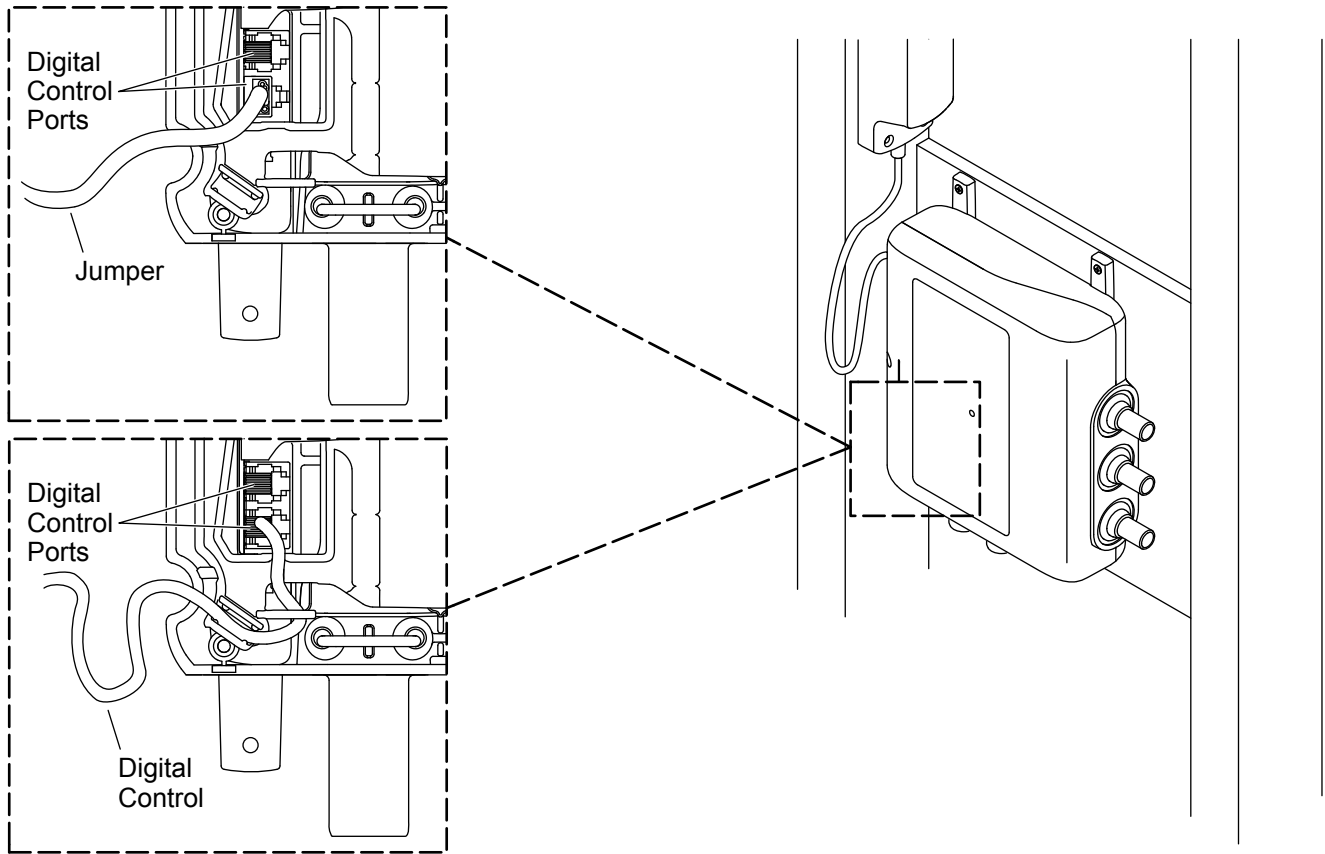


NOTICE: Do not plug in the power cord until all digital control cables are connected.

IMPORTANT! Make drip loops in all cables and cords.

- Route the digital control cable(s) in the wall from the valve location to the digital control installation location(s).
- If not already installed, install the digital control(s) according to the instructions packed with the product.
- Remove the cover to connect the digital control cable(s) to the valve. Verify that the wires are routed through the wire channel to prevent pinching the wires.
- Replace the cover.
- Plug the power cord into the valve.
- Verify that there is power to the 120 V GFCI electrical outlet.
- Plug the power cord into the electrical outlet.

7. Installation Checkout



Test for Leaks Without a Digital Control

- Disconnect the power from the valve.
- Unthread the screw to remove the cover.
- Connect the jumper cable to the digital control port, then reconnect the power.
- Wait 10 seconds for the valve to restart and the outlets to activate.
- Check all connections for leaks.
- Disconnect the power. Remove the jumper cable.
- Replace the cover. Secure with the screw.
- Reconnect the power to the valve.

Test for Proper Operation (Requires an Installed Digital Control)

NOTE: For more information about using the digital control, refer to the digital control Homeowners Guide.

- Use the digital control to turn ON the water outlets.
- Check for leaks and make adjustments as needed.

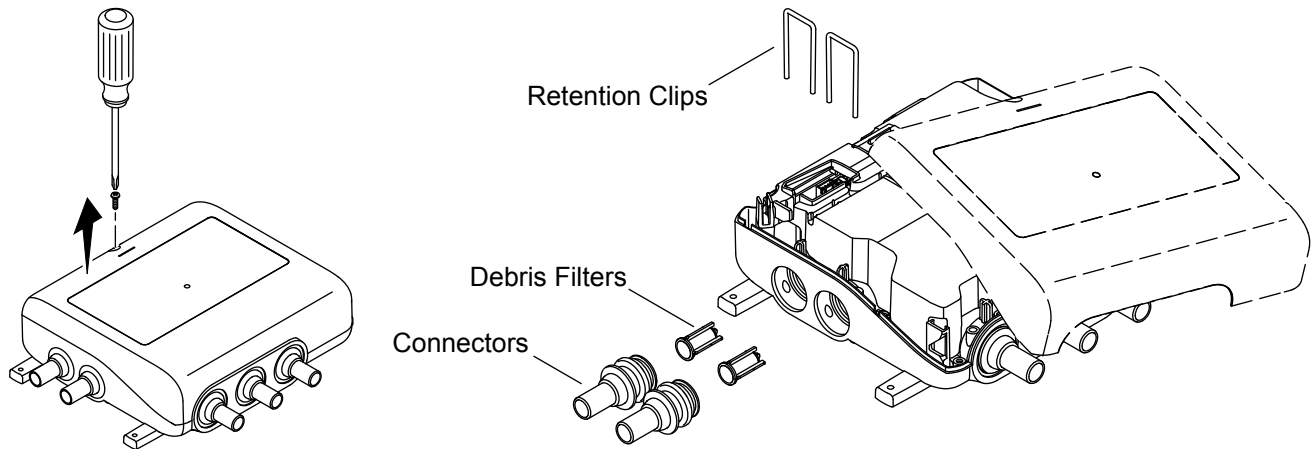
Exercise the Valve (Requires an Installed Digital Control)

NOTE: Recently installed or infrequently used valves should be exercised before setting the maximum temperature.

NOTE: The maximum water temperature to the outlets is limited to 120°F (49°C). The valve will automatically shut down if the temperature exceeds 120°F (49°C).

- Verify that the hot and cold water supply lines are connected to the appropriate valve inlets.
- Using the digital control, adjust the temperature from cold to hot and back to cold several times, pausing for 30 seconds at each extreme.

Clean the Debris Filters




⚠ CAUTION: Risk of personal injury. The valve may contain hot water. Be careful when draining any residual water.

- Turn OFF the water supply to both inlets.
- Start the shower for a few seconds to release trapped pressure and ensure that you have isolated the water supply.
- Disconnect the power.
- Unthread the screw to remove the cover.
- Lift and remove the retention clips.
- Remove the connectors. The O-ring and screen may be attached to the end of the connector.
- If the screen remains in the connector, use a pair of needlenose pliers to remove the debris filter from the connector.
- Clean the debris filters to remove any dirt or debris.

NOTE: The check valve is located within the product and does not require routine servicing. If the check valve needs to be replaced, use a blunt object to pull the check valve from the product and replace.

- Reassemble the inlet connections.
- Replace the cover. Secure with the provided screw.

Troubleshooting

 **WARNING: Risk of electric shock.** Disconnect the power before servicing.

NOTICE: Valve maintenance should be performed by a KOHLER Authorized Service Representative (ASR).

This troubleshooting guide is for general aid only. For service and installation issues or concerns, call 1-800-4KOHLER.

Symptoms	Probable Cause	Recommended Action
1. Valve will not turn ON.	<ul style="list-style-type: none"> A. The power supply is not plugged into the electrical outlet. B. The power supply is not plugged into the valve. C. Digital control cable connections may be loose or disconnected. D. Circuit breaker has tripped. E. The valve memory may require resetting. F. If none of the recommended actions for the above issues correct the symptom, the control or valve requires servicing. 	<ul style="list-style-type: none"> A. Plug the power supply into an electrical outlet. B. Plug the power supply into the valve. C. Check all control cable connections, connect if needed. D. Reset the circuit breaker. E. Disconnect and reconnect the valve power supply from the electrical outlet. F. Contact your Kohler Co. Authorized Service Representative (ASR).
2. The digital control is lit, but the system will not turn ON.	<ul style="list-style-type: none"> A. Digital control cable connections may be loose. B. The valve may require a reset. C. If the above recommended action does not correct the symptom, the control or valve requires servicing. 	<ul style="list-style-type: none"> A. Check all control cable connections, and connect if needed. B. Disconnect and reconnect the valve power supply from the electrical outlet. C. Contact your Kohler Co. Authorized Service Representative (ASR).
3. The digital control functions normally but no water flows from the shower fittings.	<ul style="list-style-type: none"> A. Valve outlets may be blocked. B. Fittings/sprayfaces may be blocked. C. Hot and cold water supplies are not turned ON. D. The valve memory may require resetting. E. System error. F. If none of the recommended actions for the above issues correct the symptom, the control or valve requires servicing. 	<ul style="list-style-type: none"> A. Check the valve outlets for blockage or debris. Clean the outlet screens. B. Clean the sprayfaces and any screens in your fittings. C. Turn ON the water supply to the valve. D. Disconnect and reconnect the valve power supply from the electrical outlet. E. Check the control for an error code. Refer to the digital control homeowners guide for error code diagnosis. F. Contact your Kohler Co. ASR.

Symptoms	Probable Cause	Recommended Action
4. Maximum blend temperature too hot or too cold.	<p>A. Incorrect maximum temperature setting.</p> <p>B. If the above recommended action does not correct the symptom, the control or valve requires servicing.</p>	<p>A. Refer to the digital control homeowners guide for maximum temperature adjustment instructions.</p> <p>B. Contact your Kohler Co. ASR.</p>
5. Continuous flow.	<p>A. System will not switch OFF.</p>	<p>A. Turn OFF the water and power supply and contact your Kohler Co. Authorized Service Representative (ASR).</p>
6. Only cold water flows from the outlets.	<p>A. Hot water supply is either not turned ON or not connected to the valve inlet.</p> <p>B. Hot water inlet is blocked.</p> <p>C. The hot water supply is exhausted.</p> <p>D. If none of the recommended actions for the above issues correct the symptom, the valve requires servicing.</p>	<p>A. Check if the hot water supply is turned ON and connected to the valve inlet.</p> <p>B. Check the hot water inlet screen for blockage. Clean or replace the inlet screen.</p> <p>C. Allow time for the water heater to come up to temperature.</p> <p>D. Contact your Kohler Co. ASR.</p>
7. Fluctuating or reduced flow rate. Valve is functioning properly.	<p>A. Valve inlets may be blocked.</p> <p>B. Fittings/Sprayface may be blocked.</p> <p>C. Water outlet pressure is low.</p> <p>D. Fluctuating supply pressure.</p> <p>E. Water supply temperatures are not within the recommended range.</p>	<p>A. Check the valve inlets for blockage or debris. Clean the inlet screens. Refer to the "Clean the Inlet Screens" section.</p> <p>B. Clean the sprayfaces and any screens in your fittings.</p> <p>C. Check that the flow rate is at or above the minimum rate required. Refer to "Specifications" section.</p> <p>D. Verify that the dynamic inlet pressures are within specifications. Refer to "Specifications" section.</p> <p>E. Check if inlet water temperatures are within the recommended range.</p>
8. Blend temperature drift or temperature cycling.	<p>A. Fluctuating water supply temperature.</p> <p>B. Pressure difference greater than 5 psi (34.5 kPa) between the hot and cold supply lines.</p> <p>C. If none of the recommended actions for the above issues correct the symptom, the valve requires servicing.</p>	<p>A. Check the inlet temperature differentials and verify that they are sufficient. Refer to "Specifications" section.</p> <p>B. Install pressure regulators to bring the supplies within 5 psi (34.5 kPa) of each other.</p> <p>C. Contact your Kohler Co. ASR.</p>
9. Water leaking from the valve. CAUTION: Risk of personal injury or product damage. Turn OFF the main power and water supply.	<p>A. Connections are not secure.</p> <p>B. Seals are worn or damaged.</p> <p>C. Internal leak.</p>	<p>A. Check all connections. Make adjustments as needed.</p> <p>B. Order a seal service pack and replace all seals.</p> <p>C. Unit requires overhaul. Contact your Kohler Co. ASR.</p>

Symptoms	Probable Cause	Recommended Action
10. Hot water only, the valve shuts down.	A. Hot and cold lines are reversed.	A. Switch hot and cold water supply connections. Verify that the hot water supply is connected to the "Hot" inlet and the cold water supply is connected to the "Cold" inlet.

Compliance

Contains FCC ID: SH6MDBT42Q, Z64-CC3235MOD

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF Exposure Warning

This transmitter with its antenna complies with FCC's RF exposure limits for general population/uncontrolled exposure. This device must not be co-located or operated in conjunction with any other antenna or transmitter. This device should be operated with a minimum distance of 7-7/8" (200 mm) between the radiator and your body.

Contains IC: 8017A-MDBT42Q, 451I-CC3235MOD

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This transmitter with its antenna complies with Industry Canada RF Exposure Limits for General Population/Uncontrolled Exposure.

This Class B digital apparatus complies with Canadian ICES-003.