# **KOHLER INSTALLATION INSTRUCTIONS**

# 22327T-7

### **BEFORE YOU BEGIN**

All information is based on the latest product information available at the time of publication. Kohler Co. reserves the right to make changes in product characteristics, packaging, or availability at any time without notice. Please leave these instructions for the consumer. They contain important information. NOTES:

1. Risk of electric shock. Connect only to circuits protected by a Ground-Fault Circuit-Interrupte (GFCI) or Residual Current Device (RCD). Grounding is required. The unit should be installed and grounded by a qualified service representative.

2. Risk of electric shock. A licensed electricia should route all electrical wiring. 3. Risk of electric shock. Disconnect power before servicing.

4. Risk of injury or property damage. Please read all instructions thoroughly and determine all required components along with their installation locations before beginning installation.

5. Do not apply excessive heat near the valve or apply flux or acids directly onto the valve. This valve contains plastic and rubber components which will melt if heat is directly applied.

6. Do not apply petroleum-based lubricants to the valve components. Doing so will damage valve components. 7. Do not use oil-based, non-setting compounds, such as plumbers putty, on the threaded connections.

8. Observe all plumbing, electrical and building codes.

9. Make sure both hot and cold supply pipes are flushed thoroughly prior to connection to the Digital Mixer Valve. 10. If possible, install valve prior to installing the interface(s). When installing electrical outlet, please install an on/off switch in a suitable position for easy operation during network connection and troubleshooting. 11. Do not plug or unplug cables on valve when the valve is power-on, which may damage the product.

# STANDARD APPLICABLE

Special model meets or exceeds the following at date of manufacture: TIS

# **SPECIFICATION**

Pressures	
Maximum Static Pressure	11
Maximum Maintained Pressure	50
Minimum Maintained Pressure	50
Supply Pressure Differential	М
Minimum Flow Rate	6
Temperatures	
Maximum Temperature (factory preset)	45
Maximum Temperature (setting range)	41
Minimum Temperature	TI
Hot Water Range	55
Cold Water Range	1°
Temperatures Stability	±
Ambient Temperature	1°
Maximum Relative Humidity	95
Electrical	I
Supply Voltage	10
Supply Voltage	

# **DTV MODE**

# **Dual Shower Set**

IMPa (10 bar)

500 kPa (5 bar)

50 kPa (0.5 bar)

Max 34.5 kPa (0.34 bar)

L/Min

15°C

1°C - 48°C

Thermostatic control down to 30°C/15°C(IOT version)

55°C - 65°C

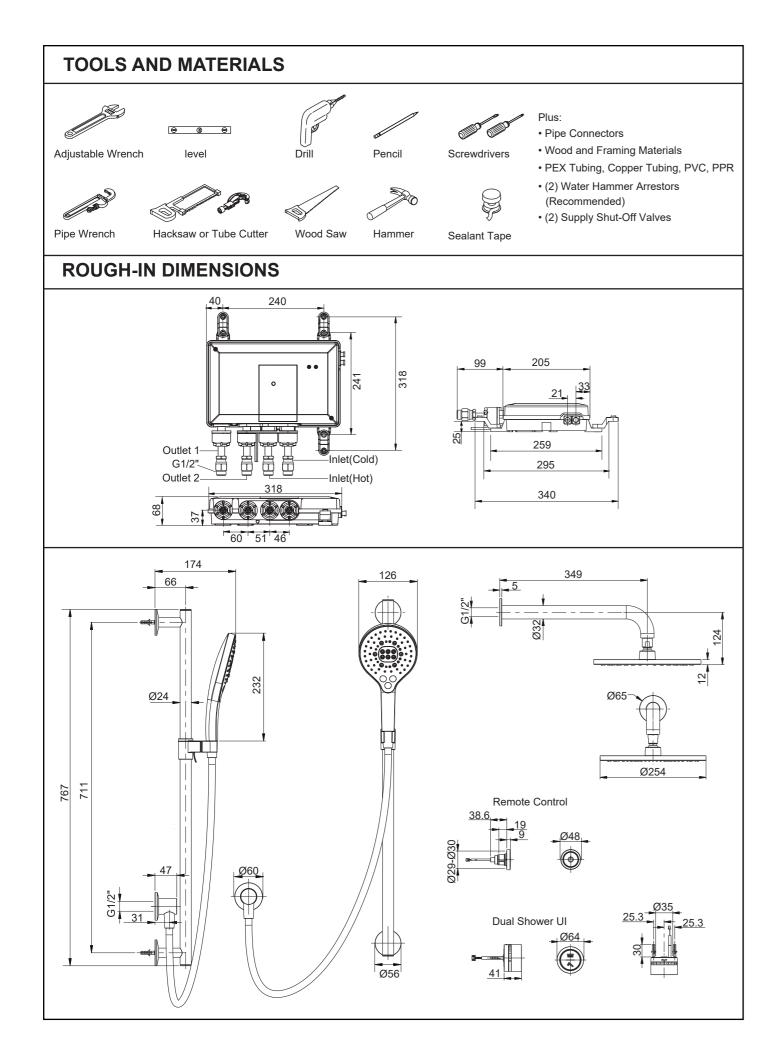
1°C - 20°C

1°C at recommended supply conditions

|°C - 40°C

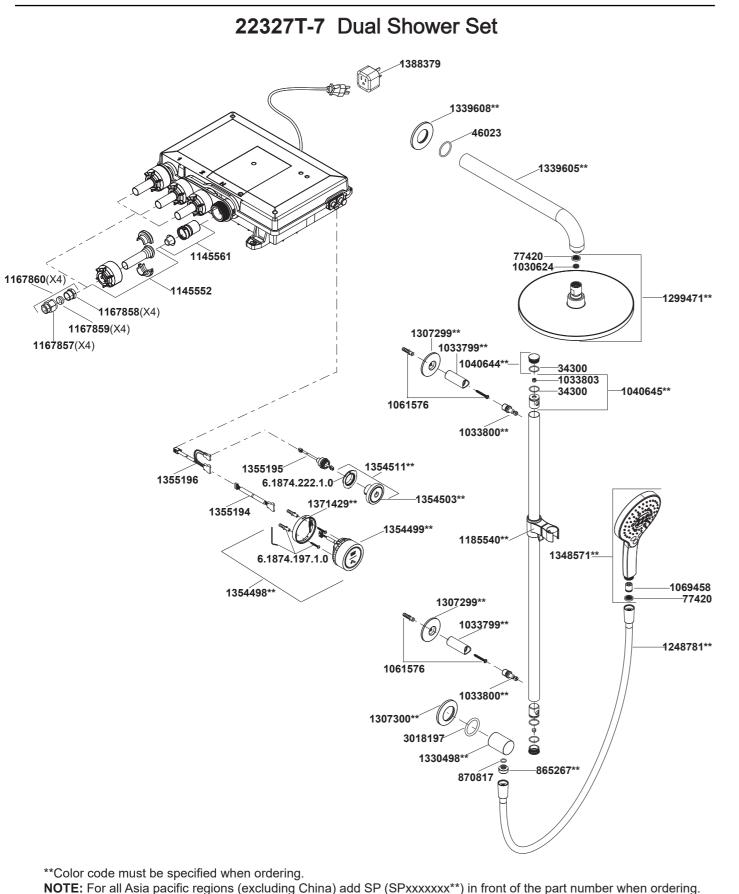
95% non-condensing

100-240V, 2A, 50 Hz/60 Hz



# **KOHLER**® **SERVICE PARTS**

**DTV MODE** 





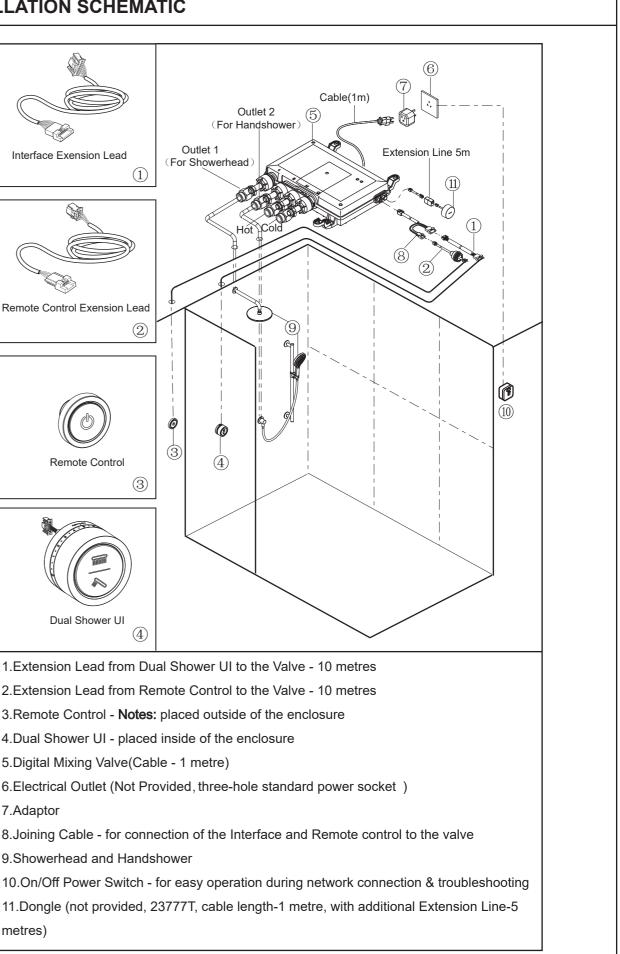
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# **INSTALLATION SCHEMATIC** Outlet 2 (For Handshower SØ Outlet 1 Interface Exension Lead For Showerhead (1)S Remote Control Exension Lead T 2 Ĝn Ø Ø 3 (4)Remote Control 3 Dual Shower UI (4)1.Extension Lead from Dual Shower UI to the Valve - 10 metres 2. Extension Lead from Remote Control to the Valve - 10 metres 3.Remote Control - Notes: placed outside of the enclosure 4. Dual Shower UI - placed inside of the enclosure 5.Digital Mixing Valve(Cable - 1 metre) 6.Electrical Outlet (Not Provided, three-hole standard power socket ) 7.Adaptor

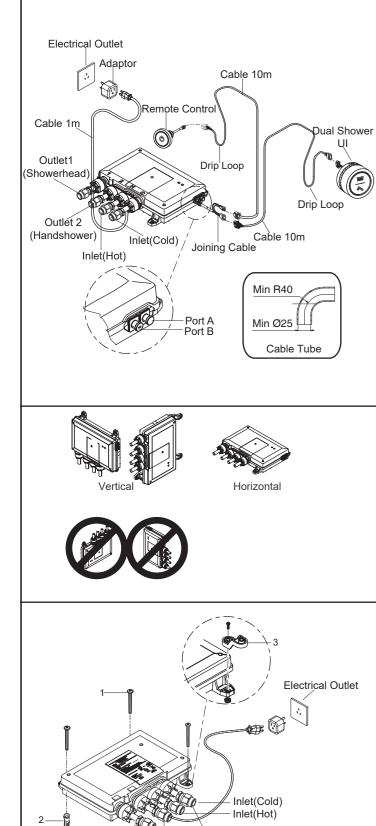
8. Joining Cable - for connection of the Interface and Remote control to the valve

9.Showerhead and Handshower

11.Dongle (not provided, 23777T, cable length-1 metre, with additional Extension Line-5 metres)



## INSTALLATION



#### Preparation

**NOTES:** Make sure both hot and cold supply pipes are flushed thoroughly prior to connection to the Digital Mixer Valve.

If possible, install electrical outlet before installing the valve. Please turn off the electrical and water supplies before installation. Always keep the valve and outlet dry. Allow for enough slack in the cables for drip loops.

Remote Control can be installed outside showering enclosure, while the Dual Shower Interface is inside the showering enclosure. Determine all required components along with their installation locations before beginning installation. **NOTES:** The valve can not be connected to two interfaces at the same time.

When routing pipes, keep in mind each valve outlet must correspond to the appropriate showering component for the preprogrammed or custom showering experiences to function properly. Please prepare cable tubes before routing cables as the dimension.

**NOTES:** The showerhead fill supply line must be routed from outlet 1, and the handshower is from outlet 2. Port A is for the dongle(not provided, 23777T) connection, port B is for joining cable.

#### Install the Valve

**NOTES**: The Digital Mixer Valve may be installed in a loft space or in a convenient space provided enough room for maintenance. Failure to do so may result in an inability to carry out any maintenance.

#### Installation Direction of the Valve

Do not mount the valve with the inlets located at the top. Do not mount the valve with the inlets or cable sockets pointing up.Vertical and horizontal mounting options are shown as the figure.

#### **Installation Steps**

Connector Kit

Nut B

□ Mark the fixing holes in required positions,drill three holes on mounting surface according to the rough-in dimensions and diameter of the anchors(2).

Press anchors into the holes, install and secure
 Digital Mixer Valve in position with fixing screws(1).
 NOTES: Install the offset foot(3) if needed.

Install nut A, the ring and nut B onto inlet/outlet.
 Hand-tighten nut A and nut B. Hold nut A with a wrench, meanwhile tighten nut B with another wrench.
 NOTES: The connector kit must be pushed into the end towards valve direction, tighten it firmly.

□ Connect hot and cold water supply pipes to Digital Mixer Valve.

□ Route pipes from valve outlet to the installation locations of showerhead and wall-mount connection.

 Route cables from valve to the Dual Shower UI and Remote Control installation locations.

# Statistics of Contents of Toxic or Hazardous Substances or Elements

	Toxic or Hazardous Substance or Elements					
Part name	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Valve	×	0	0	0	0	0
Interface Assy	×	0	0	0	0	0
Connection Assy	×	0	0	0	0	0
Faucet Assy	×	0	0	0	0	0

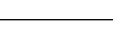
 $\bigcirc$ : Indicates that the substance in the material composition is below the high limits of the current requirements in GB/T 26572.

 $\times$ : Indicates that at least one of the homogeneous substance in the material composition is above the high limits of the current requirements in GB/T 26572.

Note: the information provided is based on the supplier data and Kohler inspection results. The product is designed not to hurt the environment. Under current technology, all hazardous materials have been used in the smallest amounts possible. Kohler will strive to reduce the use of these hazardous materials used in this product.



The product "service life for environment protection" is 10 years; Kohler Company will specify product service life based on product characteristics. The product "service life for environment protection" is only effective when the product is used as described in the product specification.



Outlet1

Outlet 2

(Showerhead) (Handshower)

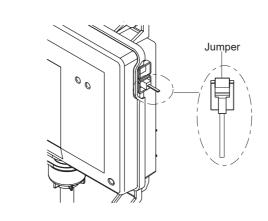
Nut A Ring

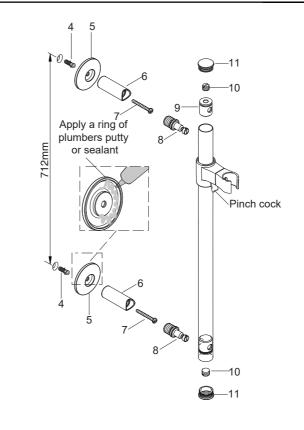
Troubleshooting Table(cont.)				
Symptoms	Probable Cause	Recommended Action		
9. Water leaking from the valve.	A. Connections are not secure.	A. Check all connections. Make adjustments as needed.		
<b>CAUTION:</b> Risk of personal injury or product damage. Turn off the main power and water supply.	B. Seals are worn or damaged.	B. Order a seal service pack and replace all seals.		
	C. Internal leak.	C. Unit requires overhaul. Contact your Kohler Co. Authorized Service Representa- tive.		
10. Hot water only, the valve shuts down.	A. Hot and cold lines are reversed.	A. Switch hot and cold water supply connec- tions. Verify the hot water supply is connected to the inlet marked "H" and the cold water supply is connected to the inlet marked "C."		
11. No Lights on interface.	A. Not connected to valve.	A. Check connections, connect if needed.		
	B. No power to valve.	B. Check power supply, connect if needed.		
	C. Faulty user interface.	C. Contact your Kohler Co. Authorized Service Representative.		
12. Interface Button Flashing (2 times a second).	A. Stuck button on interface.	A. Contact your Kohler Co. Authorized Service Representative.		
	<ul><li>B. Intermittent connection to valve.</li><li>C. Digital Mixing Valve fault.</li><li>D.Wrong interface connected.</li></ul>	<ul><li>B. Check connections, connect if needed.</li><li>C. Contact your Kohler Co. Authorized</li><li>Service Representative.</li><li>D. Contact your Kohler Co. Authorized</li><li>Service Representative.</li></ul>		
13. Temperature Indicator and Interface.button flashing (2 times a second).	A. Over temperature error	A. Contact your Kohler Co. Authorized Service Representative.		
14. Fault with Remote Control.	A. Faulty lead.	A. Contact your Kohler Co. Authorized		
	B. Not connected to valve.	Service Representative. B. Check Connections, connect if needed.		
	C. Faulty button.	C. Contact your Kohler Co. Authorized Service Representative.		
15. All Interface Button Flashing (2 times a second) & Temperature Indicator and Interface button flashing (2 times a second)		A. Turn off the mains power to the product & reboot after 10 seconds. If the fault is not rectified, then Contact your Kohler Co. Authorized Service Representative.		

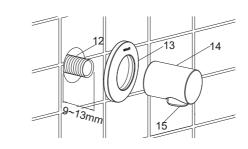
# **CLEANING INSTRUCTIONS**

All Finishes: Clean the finish with mild soap and warm water. Wipe entire surface completely dry with clean soft cloth. Many cleaners may contain chemicals, such as ammonia, chlorine, toilet cleaner etc. which could adversely affect the finish and are not recommended for cleaning.

Do not use abrasive cleaners or solvents on Kohler faucets and fittings.







### **Check the Valve Installation**

- □ Turn on the water supply to the valve.
- $\hfill\square$  Check all connections for leaks and make any adjustments as needed.
- □ Disconnect the power from the valve.
- □ Insert the jumper into either of the valve sockets.
- □ Reconnect the power to the valve.
- $\hfill\square$  Wait 10 seconds for the valve to initialize; outlets will activate.
- Check all connections for leaks.
- □ Disconnect the power and remove the jumper.
- □ Reconnect the power to the valve for normal usage.

### Install the Slide Bar

 Select a suitable location to drill two holes on finished wall according to dimensions and diameter of anchors(4), the distance is 712mm. Press anchors into holes.

□ Apply a ring of plumbers putty or sealant into the groove on the backside of escutcheon(5). Position escutcheon and post(6) over the mounting hole. Install escutcheon and post to the wall with screw(7). Loosely tighten the screw.

 Hold slide bar up against the posts, adjust the position of posts until the notch fits against slide bar.
 Remove slide bar, tighten screws to secure the posts.

 $\hfill\square$  Thread the pin(8) into the post; tighten with a flat blade screwdriver.

□ Align the hole of lock assembly(9) with the holes of the slide bar. If needed, use a screwdriver to adjust the position of the lock assemblies.

 Insert pins through the holes of lock assemblies and slide bar.

 $\square$  Secure slide bar by tightening the setscrews(10). Press the cap(11) into each end of the slide bar.

**NOTES:** Ensure that all coupling nuts are tightened. The height of handshower holder can be adjusted and slide up and down by pressing the pinch cock.

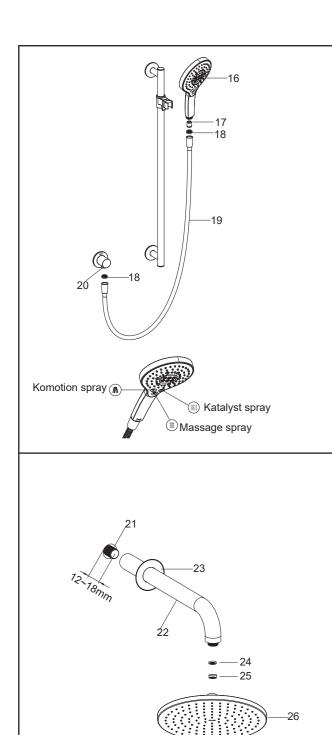
#### Install Wall-mount Connection

To perform installation, installer must provide G1/2" nipple(12), it should extend 9~13mm beyond the finished wall.

 $\hfill\square$  Apply tape or thread sealant to the nipple threads.

□ Install the escutcheon(13) onto the connection(14). Thread and tighten connection to G1/2" nipple by strap wrench. Adjust the position and ensure thread outlet(15) faces down. Push escutcheon until it is against the finished wall.

□ Flush both water supplies through connection for about one minute to remove debris.



#### Install the Handshower

□ Flush both water supplies for about one minute before the handshower(16) is installed.

□ Put the screen washer(18) into the shower hose(19) connector. Screw the handshower to the hose. Install regulator(17) into the handshower inlet if needed. Connect another end of shower hose to the connector(20). Tighten all the connectors. Hang the handshower on the bracket.

NOTE: Don't over tighten.

Press the buttons on the handshower to change the water flow.

#### Install the Shower Arm and Showerhead

□ Apply tape or sealants to G1/2<sup>"</sup> nipple(21, not provided) threads. Install the G1/2<sup>"</sup> nipple to extend 12-18mm beyond the finished wall.

 $\Box$  Slide the escutcheon(23) onto the shower arm(22).

 Thread the shower arm to the G1/2" nipple, tighten by strap wrench. Adjust the shower arm downwards.
 Push the escutcheon against the finished wall.

 Flush both water supplies through the shower arm for about one minute to remove debris.

□ Apply tape or sealant to the exposed end of the shower arm(22). Install the showerhead(26) with the washer(24) onto the shower arm, tighten them with a wrench.

Before installation, install regulator(25) if needed.
 Take out washer(24) and install regulator as the figure shown, reinstall washer. Adjust the showerhead to keep it horizontal with provided bubble level after the showerhead is installed.

#### How to Clean the Nozzle

Any debris or mineral build-up may cause the flow stream become distorted or reduce the flowrate. To remove the debris or mineral build-up, run water through the showerhead, firmly press or rub your finger back and forth across the rubber nozzles.

Symptoms	Probable Cause	Recommended Action
4. Maximum blend temperature too hot or too cold.	A. Incorrect maximum temperature setting.	A. Refer to the "Set the Maximum Temperature" section.
	B. If the above recommended action does not correct the symptom, the interface or valve requires servicing.	B. Contact your Kohler Co. Authorized Service Representative.
5. Continuous flow.	A. System will not switch off.	A. Turn off the water and power supply and contact your Kohler Co. Authorized Service Representative.
	B. Flow rate exceeds 10 gpm (45.5 L/min) from one outlet.	B. Ensure flow restrictors are installed in both outlets.
6. Only cold water flows from the outlets.	<ul> <li>A. Hot water supply is either not turned on or not connected to the valve inlet.</li> <li>B. Hot water inlet is blocked.</li> </ul>	<ul> <li>A. Check if the hot water supply is turned of and connected to the valve inlet.</li> <li>B. Check the hot water inlet screen for blockage. Clean or replace the inlet screer</li> </ul>
	C. The hot water supply is exhausted.	C. Allow time for the water heater to come up to temperature.
	D. If none of the recommended actions for the above issues correct the symptom, the valve requires servicing.	D. Contact your Kohler Co. Authorized Service Representative.
7. Fluctuating or reduced flow rate. Valve is functioning	A. Valve inlets may be blocked.	A. Check the valve inlets for blockage or debris. Clean the inlet screens. Refer to the "CARE AND MAINTENANCE" section.
properly.	B. Fittings/Spray faces may be blocked.	B. Clean the spray faces and any screens your fittings.
	C. Water outlet pressure is low.	C. Check that the flow rate is at or above the minimum rate required. Refer to "SPECIFICATION" section.
	D. Fluctuating supply pressure.	D. Verify that the dynamic inlet pressures are within specifications.Refer to "SPECIFICATION" section.
	E. Water supply temperatures are not within the recommended range.	E. Check if inlet water temperatures are within the recommended range.
8. Blend tempera- ture drift or tempera- ture cycling.	A. Fluctuating water supply temperature.	A. Check the inlet temperature differentials and verify they are sufficient. Refer to "SPECIFICATION" section.
	B. Pressure difference greater than 5 psi (34.5 kPa) between the hot and cold supply lines.	B. Install pressure regulators to bring the supplies within 5 psi (34.5 kPa) of each other.
	C. If none of the recommended actions for the above issues correct the symptom, the valve requires servicing.	C. Contact your Kohler Co. Authorized Service Representative.

# TROUBLESHOOTING

**WARNING:** Risk of electric shock. Disconnect power before performing any maintenance. When disconnected, the product will no longer be electrically live, which will eliminate the risk of electric shock.

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

**NOTES**: Turn off the power and water supply to the valve before performing any maintenance to the valve.

It is recommended that any valve maintenance should be performed by a Kohler Co. Authorized Service Representative.

This troubleshooting guide is for general aid only. For service and installation issues or concerns, call 800-820-2628.

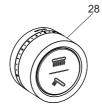
#### **Troubleshooting Table Symptoms Probable Cause Recommended Action** A. Plug the valve into an outlet. 1. Control panel is A. Valve is not plugged into the outlet. not lit. B. Interface cable connections may be loose B. Check all interface cable connections, connect if needed. or disconnected. C. Reset the circuit breaker. C. Circuit breaker has been tripped. D. The valve memory may require resetting. D. Disconnect and reconnect the valve power cord from the electrical outlet. E. Connect the interface to the valve using a E. A "straight-through" cable or coupler was used to connect the interface to the valve. "cross-over" cable and coupler. F. If none of the recommended actions for F. Contact your Kohler Co. Authorized the above issues correct the symptom, the Service Representative. valve or interface requires servicing. A. Check all interface cable connections. 2. The interface A. Interface cable connections may be connect if needed. power indicator is loose. lit, but the system B. If the above recommended action does B. Contact your Kohler Co. Authorized will not turn on. Service Representative. not correct the symptom, the interface or valve requires servicing. A. Check the valve outlets for blockage or 3. The interface A. Valve outlets may be blocked. debris. Clean the outlet screens. Refer to functions normally the "Clean the Outlet Screens" section. but no water flows from the compo-B. Clean the spray faces and any screens in B. Fittings/Spray faces may be blocked. nents. your fittings. C. Hot and cold water supplies are not C. Turn on the water supply to the valve. turned on. D. The valve memory may require resetting. D. Disconnect and reconnect the valve power cord from the electrical outlet. E. If none of the recommended actions for E. Contact your Kohler Co. Authorized the above issues correct the symptom, the Service Representative. valve requires servicing.

#### Install the Interface

Press the buckle at the back of the interface to uninstall the backplate(27). Place the backplate at the position on the wall where you intend to install the interface(28). Make sure that the backplate is level, and keep "KOHLER" logo upwards.

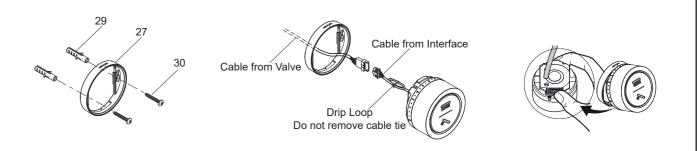
Mark the positions of the fixing holes on the wall. Drill the holes for the interface cable as per the dimensions and the diameter of anchors(29).

**Caution!** Be aware of hidden pipes or cables. For solid walls, drill the fixing holes for the backplate with a 6mm drill and insert the anchors.



Fit the backplate to the wall with the fixing screws(30). Make sure that the backplate is level, and keep "KOHLER" logo upwards. Route the cable from the valve through the wall. Connect the cable at the back of the interface to the cable that comes from the valve as shown.

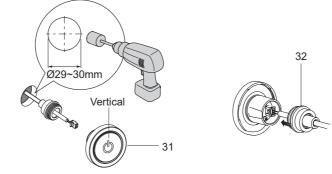
Locate the top of the interface in the backplate and press down to secure in position.

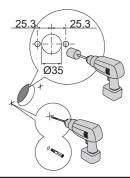


### Install the Remote Control

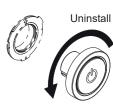
Decide on a suitable location for the remote control(31). Drill a 29-30mm diameter hole to a minimum depth of 50mm. It can be installed up to 10 metres away from the valve. Using the cleaning wipe to clean the surface around the mounting hole. Route the cable from the valve through the wall. Connect the cable of the remote control to the cable that comes from valve. Push the rubber grommet(32) into place. Remove the paper from the adhesive back. Install the remote control in position, make sure the icon on the remote control is vertical as shown, and press firmly to secure.

**NOTES:** The remote control cannot be adjusted when it is fitted. Make sure to test fitment before removing the tape. If required, the ON/OFF remote button can be removed from the backplate by rotating anticlockwise.





Adhesive Paper



# **COMPLETE THE INSTALLATION**

NOTES: Do not plug in the power cord until all interface cables are connected.

NOTES: Make drip loops in all cables and cords.

□ Route the interface cable(s) in the wall from the valve location to the interface installation locations.

□ If not already installed, install the interface(s) at this time according to the instructions packed with the product.

- □ Connect the interface cable(s) to the valve.
- □ Verify there is power to the electrical outlet.
- □ Plug the power cord into the outlet.

# **INSTALLATION CHECKOUT**

- □ Turn on the water supply to the valve.
- Check all connections for leaks and make any adjustments as needed.
- Press the icon on the interface. The interface screen will be lit and the shower should be turned on.

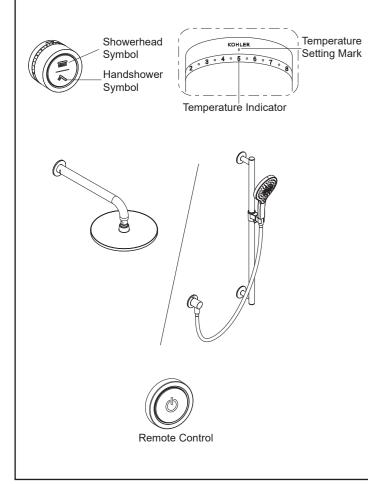
**NOTE:** For more information about using the user interface and its menus, refer to the user interface.

□ Check for leaks and make any adjustments as needed.

□ Verify that the water flow is sufficient for your showering needs. Remove the regulator in the outlet of the valve if needed.

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).

# **OPERATION INSTRUCTIONS**



### How to Operate the Interface

Showerhead Symbol - (Top Button) Turn showerhead On/Off.

Handshower Symbol - (Bottom Button) Turn handshower On/Off.

**NOTES:** Showerhead and handshower can be used at the same time.

Rotary movement selects showering temperature. The larger the number which the temperature setting mark is aligned, the higher the temperature. "C" is for full cold water, "H" is for pre-set Max temperature.

NOTE: The factory default maximum temperature is set to 45°C. And the default maximum time of water outflow is 30 minutes, it will be turned off automatically after 30 minutes.

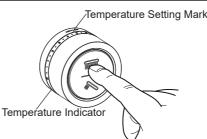
When you turn on the product and water begins to flow, the temperature indicator light will begin to flash to show the product is warming up. Once the preselected outlet temperature has been reached, the indicator light will stop flashing.

Press the buttons on the handshower to change the water flow.

#### Remote Control

Turn the shower On/Off. Through the remote control, showerhead and handshower will be turned off at the same time. But only showerhead will be turned on by default.

# SETTINGS



When the shower is in the off position, hold down the showerhead button for 10 seconds, the lights will pulse slow to indicate setting mode.

Adjust temperature indicator according to the table below to set desired maximum temperature. The scale on the indicator which the temperature setting mark is aligned represents the selected maximum temperature. Caution! Make sure that the maximum outlet temperature is suitable and safe for all users.

Temp Indicator Position	Temp (°C)
С	Exit No Change
1 - 3	41
4 - 6	45
7 - 9	48
Н	Exit No Change

# **CARE AND MAINTENANCE**

Screen

O-Ring

Unthread the plastic nuts from the hot and cold inlets. Remove the copper tubes. The O-ring and screen may be attached to the end of the tube.

If the screen remains in the check valve, use a small flat-blade screwdriver to gently pull the check valve from the valve inlets.

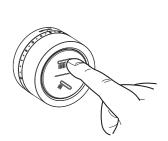
Clean the screens to remove any dirt or debris. Rinse or replace the check valves and screens. Reassemble the inlet connections.

# Clean the Handshower

nozzles.

Copper Tube





Press the showerhead button to set the maximum temperature. The temperature indicator light will flash three times to confirm the setting has been completed.

### **Clean the Inlet Screen**

Disconnect the power and turn off the water supply.

Remove the screens from the copper tubes or check valves.

Any debris or mineral build-up may cause distorted flow stream or reduce the flow rate. To remove the debris or mineral build-up, run water through the handshower, firmly press or rub your finger back and forth across the rubber

Remove and clean the screen washer.

### Uninstall the Button of the Interface

Insert one end of a hex wrench into the hole on the backplate to remove the button, replace it if needed during maintenance.