

JADO

P r o d u c t s

Jean Nouvel

Product Numbers

Single Hole Electronic Faucet
with Pop-up Drain
821/001

Single Hole Electronic Faucet
without Pop-up Drain
821/901

JADO USA
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Chandler, AZ 85226
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Single Hole Lavatory Electronic Faucet Installation Instructions

To ensure that your installation proceeds smoothly--please read these instructions carefully before you begin.

L u x u r y F a u c e t s a n d A c c e s s o r i e s



Jean Nouvel
Single Hole Electronic Lavatory Faucet

Features:

- 3/8" Compression Inlet Connections
- Flexible supply hoses
- Thermostatic mixing valve built into product
- Laminar water flow ("waterfall effect")
- Four 1.5V C size batteries (included)
- Batteries will last two years with average usage of a four person household
- Start up temperature 81°F (27°C) - Max. temperature 118° F (48°C)
- Sink must be a minimum of 24" (60mm) wide
- 2.0 GPM maximum flow rate
- Available with or without Speed Connect™ drain
- Recommended for residential application only

Technical data

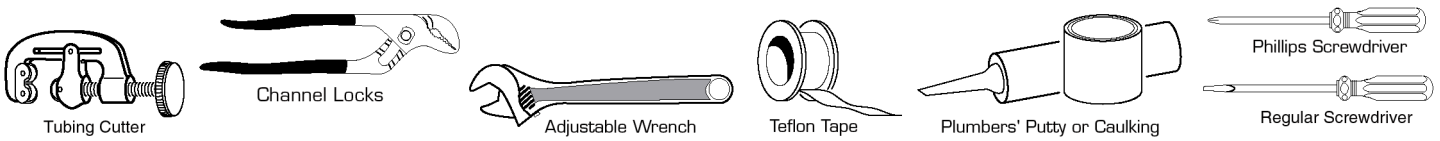
Hydraulic data

| | |
|---|-------------------------------|
| Maximum Flow Rate | 2.0 GPM (7.6 L/min) |
| Recommended flow pressure | 20 to 80 psi (1.4 to 5.5 bar) |
| Maximum temperature which can be set | 118°F (48° C) |
| Maximum temperature which can be programmed | 109°F (43° C) |

Electrical data

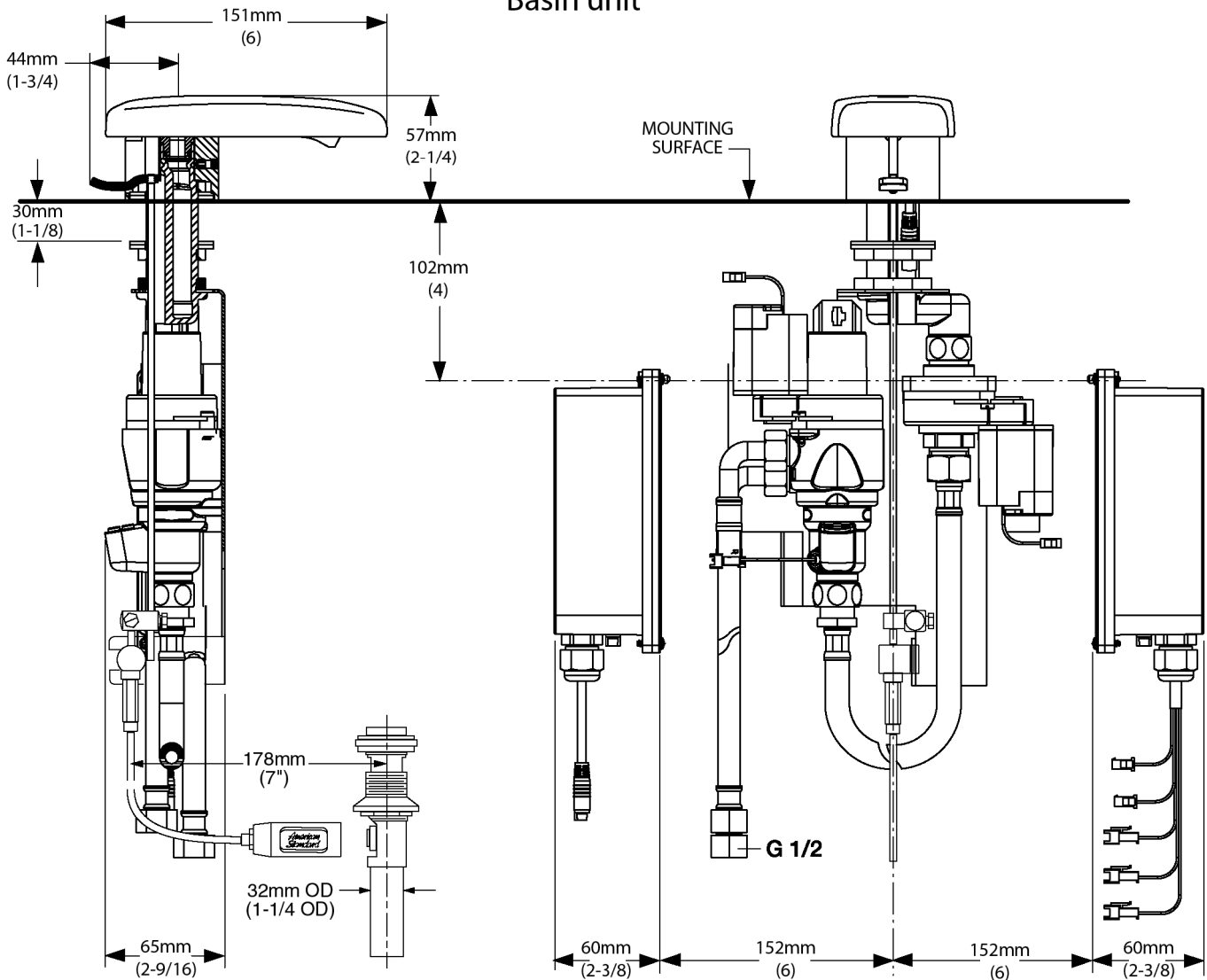
Use standard batteries (4 x 1.5, C)
 We recommend high-quality mercury- and cadmium-free alkaline batteries! Size C.
 IEC designation: LR 14

RECOMMENDED TOOLS



ROUGHING-IN DIMENSIONS

Basin unit



1 Installation **CAUTION** Turn off hot and cold water supplies before beginning.

INSTALL VALVE ASSEMBLY

- Unpack VALVE ASSEMBLY (1) from box.
- Install LOCK NUT (2), BRASS WASHER (3) and RUBBER WASHER (4) onto SPOUT MOUNTING SHANK (5). Thread LOCK NUT (2) down on SPOUT MOUNTING SHANK (5). Fig. 1.
- Face the flat side of the VALVE ASSEMBLY (1) toward the front of the lavatory. From the underside of the mounting surface install the SPOUT MOUNTING SHANK (5) into mounting hole of the lavatory or mounting surface. Fig. 1.
- Install RUBBER WASHER (6), BRASS WASHER (7) and LOCK NUT (8) onto SPOUT MOUNTING SHANK (5). Thread the LOCK NUT (8) down onto the SPOUT MOUNTING SHANK (5). Fig. 2.
- Adjust the LOCK NUT (8) so the height of the SPOUT NIPPLE (9) from the mounting surface is between the min. and max. on the GAGE (10) supplied. This adjustment is very important to insure that the spout will seat flush against the mounting surface when installed. Fig. 3.

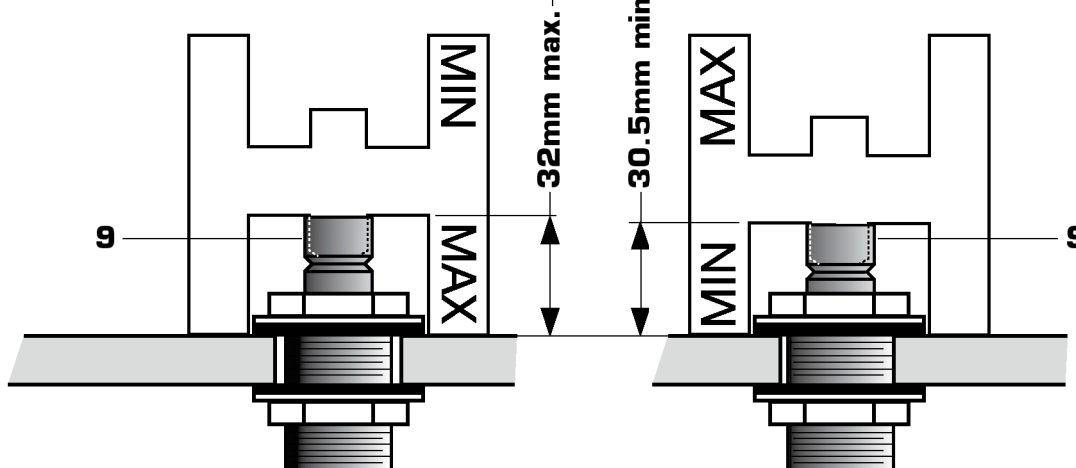
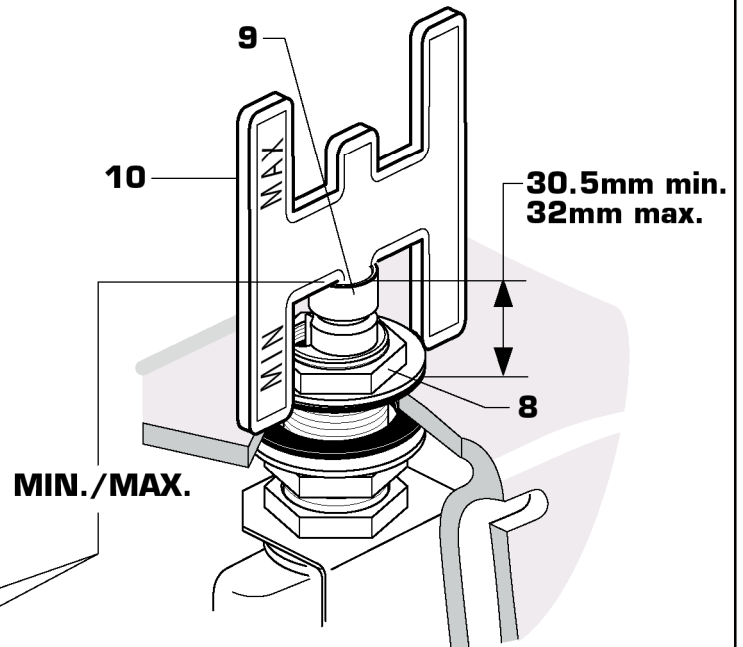
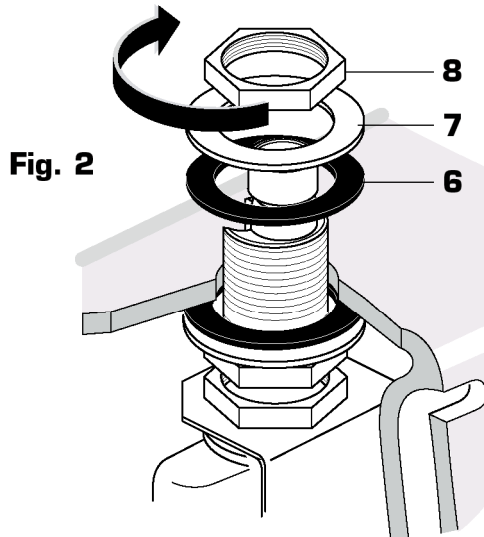
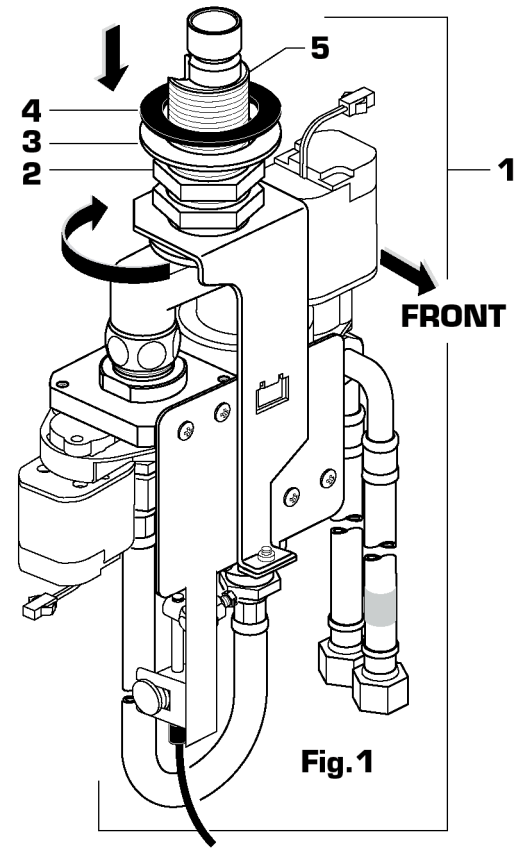
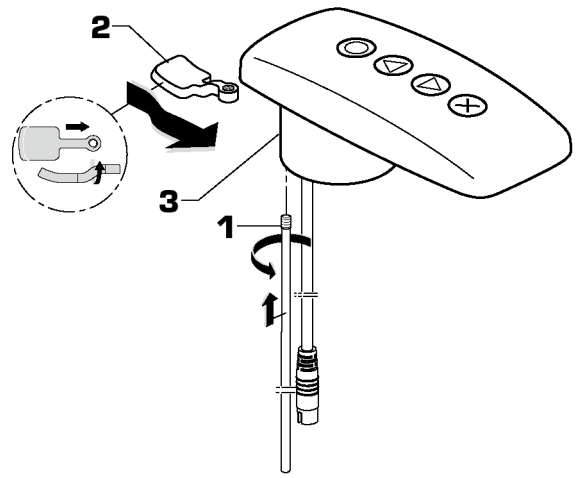


Fig. 3

2 Installation

INSTALL LIFT ROD

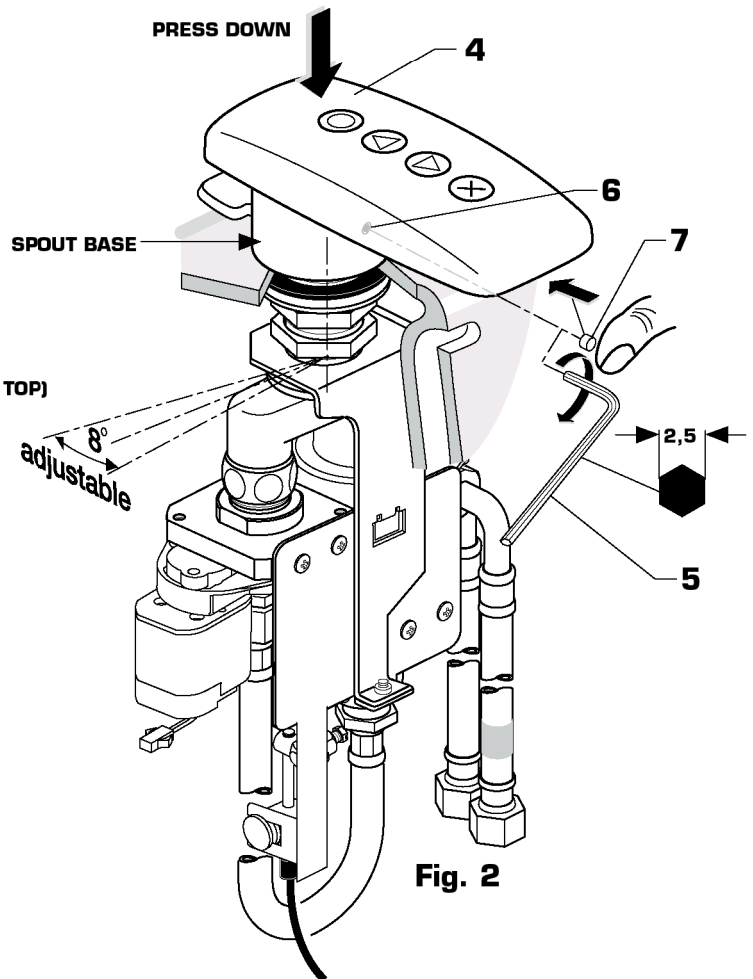
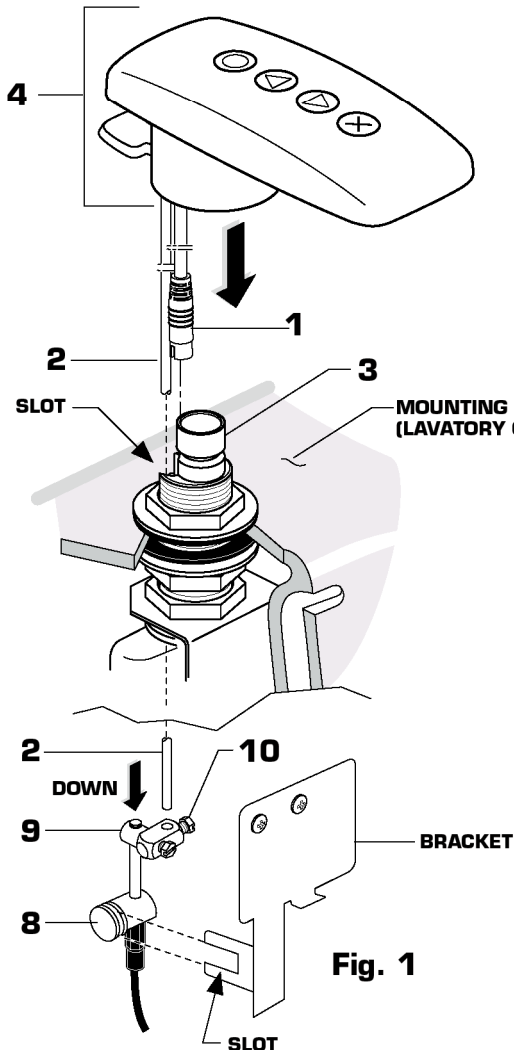
- Unthread LIFT ROD (1) from LEVER (2).
- Insert LEVER (2) into the slot in back of the SPOUT BASE (3). Align the LEVER (2) and LIFT ROD (1) and thread the lift rod (1) back into the LEVER (2).



3 Installation

INSTALL SPOUT ASSEMBLY

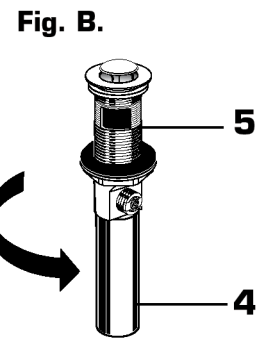
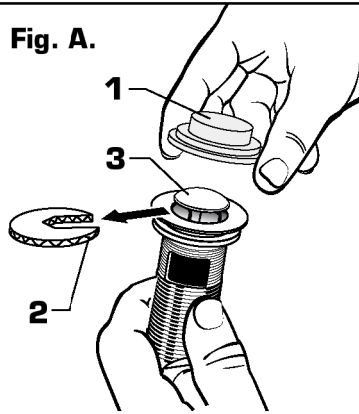
- Insert the CABLE CONNECTOR (1) and LIFT ROD (2) into the slot in the SPOUT SHANK (3). Push the SPOUT ASSEMBLY (4) onto the SPOUT SHANK (3) until seated flush against the mounting surface. **Fig. 1.** Slide the SPEED CONNECT CABLE END (8) into bracket slot. Push SWIVEL (9) down. Insert end of LIFT ROD (2) into SWIVEL (9). Tighten LOCKING SCREW (10) to secure LIFT ROD (2) to SPEED CONNECT CABLE END (8). **Fig. 1.**
- Align SPOUT ASSEMBLY (4). **Fig. 2.** *Note: Valve assembly can be adjusted approx. 8° if necessary.* **Fig. 2.**
- Press down on SPOUT ASSEMBLY (4) and with the 2,5mm HEX WRENCH (5) supplied tighten SPOUT SET SCREW (6) located on front of spout base. **Fig. 2.**
- When SPOUT ASSEMBLY (4) is secured and alignment is satisfactory push PLUG BUTTON (7) into place. **Fig. 2.**



4 Installation

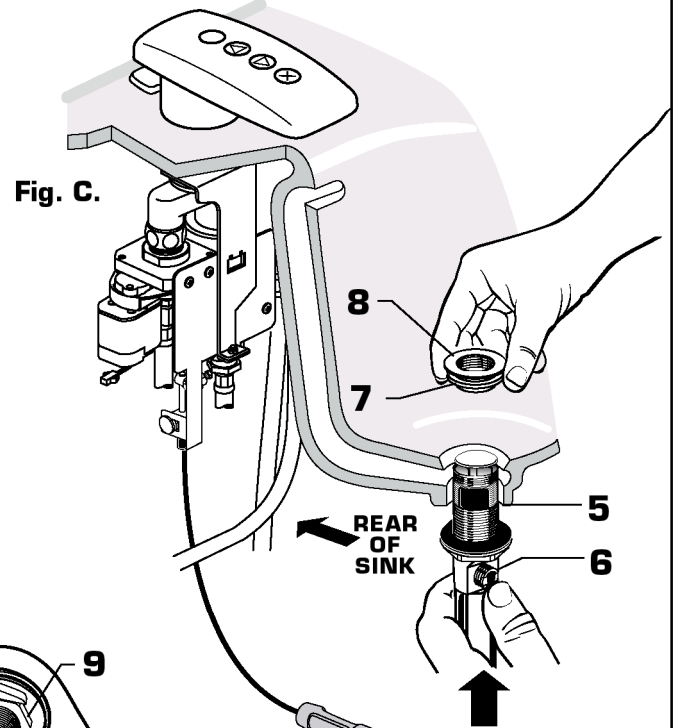
POP-UP DRAIN ASSEMBLY AND SUPPLY CONNECTIONS

- Remove CLEAR PLASTIC COVER (1). Fig. A.
- Remove CARDBOARD SPACER (2) from under DRAIN POP-UP (3).
- Tighten TAILPIECE (4) on DRAIN BODY (5) before installing DRAIN BODY. Fig. B.



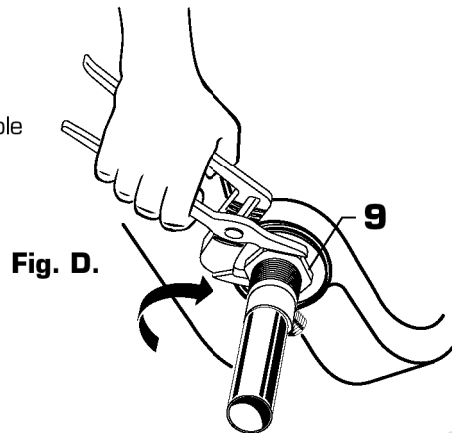
INSTALL DRAIN ASSEMBLY

- From under side of SINK install DRAIN BODY (5) up through drain outlet. Fig. C.
- **Note:** No plumber's putty or caulk is required. The CABLE ATTACHMENT POINT (6) must face towards the rear of the SINK.
- Install FOAM GASKET (7) and FLANGE (8) onto drain body from above SINK and tighten FLANGE (8) firmly.



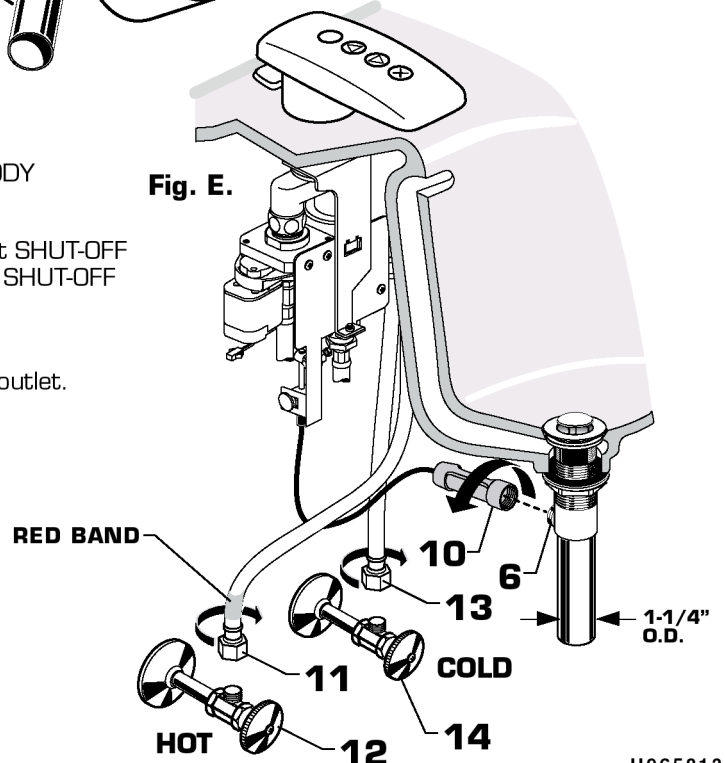
TIGHTEN LOCKNUT

- Tighten LOCKNUT (9) firmly with Adjustable Wrench or Channel Locks. Fig. D.



CONNECT CABLE CONNECTOR AND SUPPLIES

- Thread CABLE CONNECTOR (10) clockwise onto DRAIN BODY CONNECTION (6) and hand tighten. Fig. E.
- Connect HOT WATER SUPPLY HOSE (11) (Red Band) to left SHUT-OFF VALVE (12) and COLD WATER SUPPLY HOSE (13) to right SHUT-OFF VALVE (14).
- **Note:** Tailpiece on pop-up drain is 1-1/4" O.D. Fig. E. Connect 1-1/4" O.D. tailpiece on POP-UP DRAIN to waste outlet.

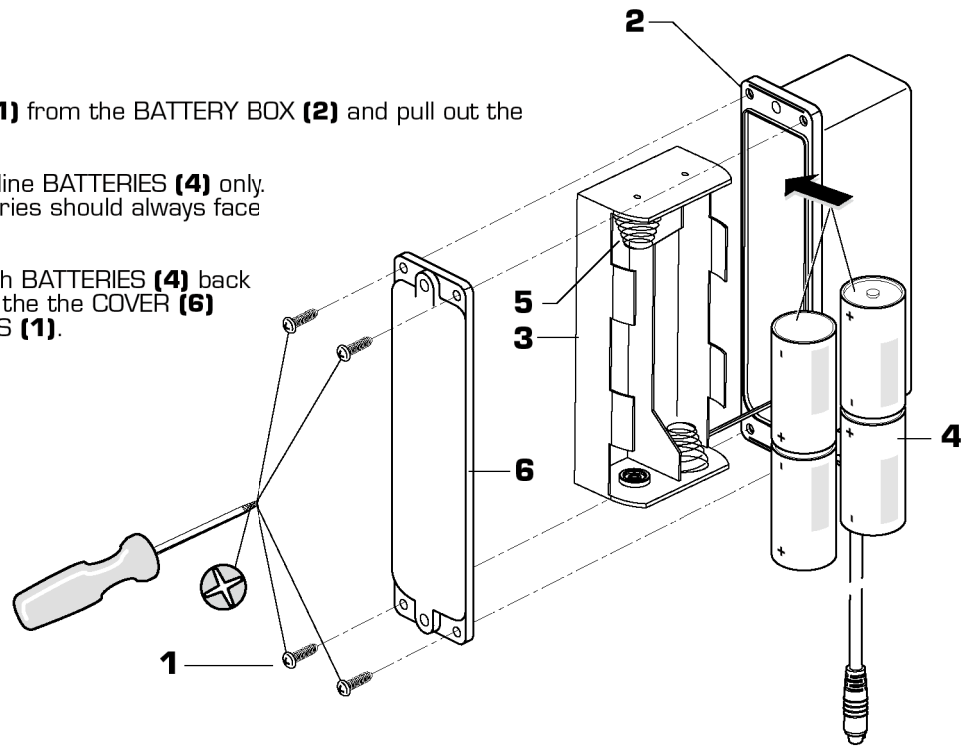


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5 Installation

INSTALL BATTERIES

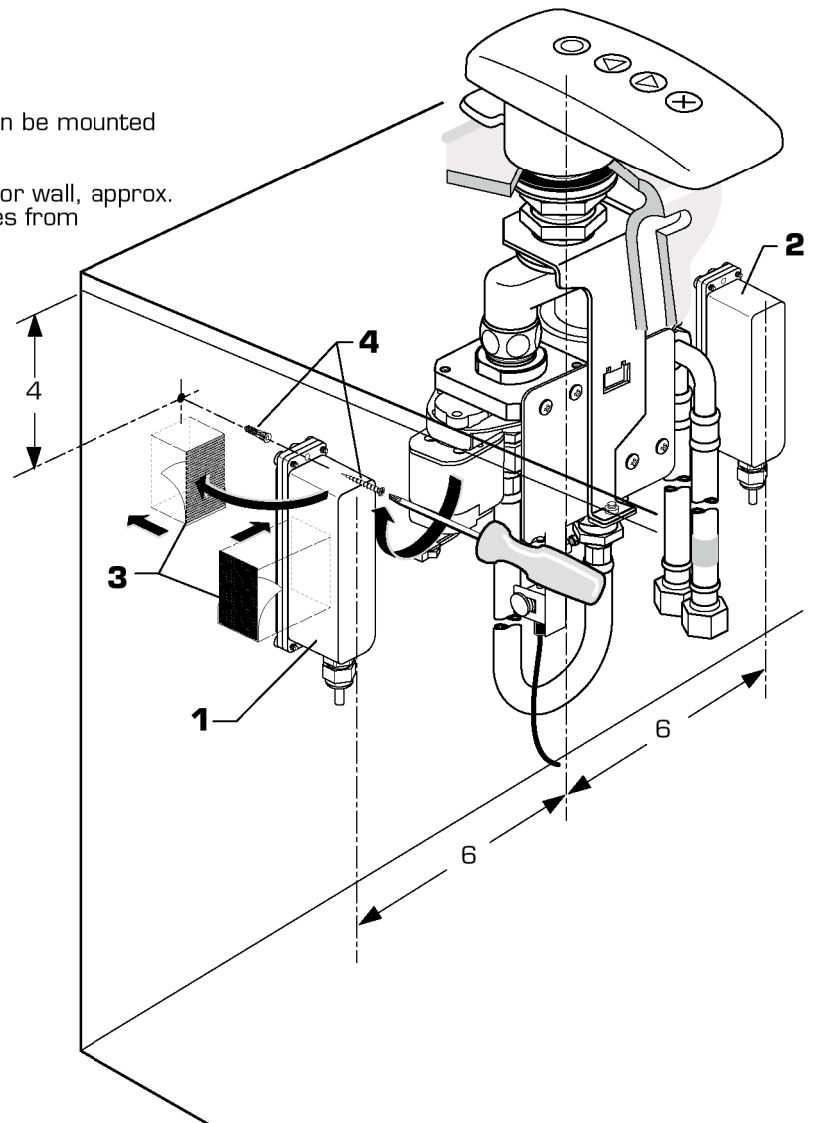
- Remove the four COVER SCREWS (1) from the BATTERY BOX (2) and pull out the BATTERY HOLDER (3).
- Install four "C" size High Quality Alkaline BATTERIES (4) only.
Note: The negative end of the batteries should always face toward the SPRING (5).
- Install the BATTERY HOLDER (3) with BATTERIES (4) back into the BATTERY BOX (2). Replace the the COVER (6) and tighten the four COVER SCREWS (1).



6 Installation

MOUNT BATTERY AND ELECTRONIC CONTROL BOXES

- The BATTERY (1) AND ELECTRONIC (2) BOXES can be mounted using screws or velcro supplied with faucet.
- Mount the BOXES (1, 2) on the back of the vanity or wall, approx. 6 inches from the center of the faucet and 4 inches from the underside of the mounting surface.
- **Mounting with Velcro**
Clean the BOXES (1, 2) and wall before applying the Velcro (3). Peel off the backing and apply one side to the BOX and the other to wall. Mount Box to wall.
- **Mounting with Screws**
Mark a center line 4 inches down from the underside of the mounting surface and 6 inches from center of faucet. Drill a pilot hole for the SCREW and INSERT (4) or as required.
- Insert the mounting SCREW (4) into the top hole of the box and tighten. Do not over tighten.

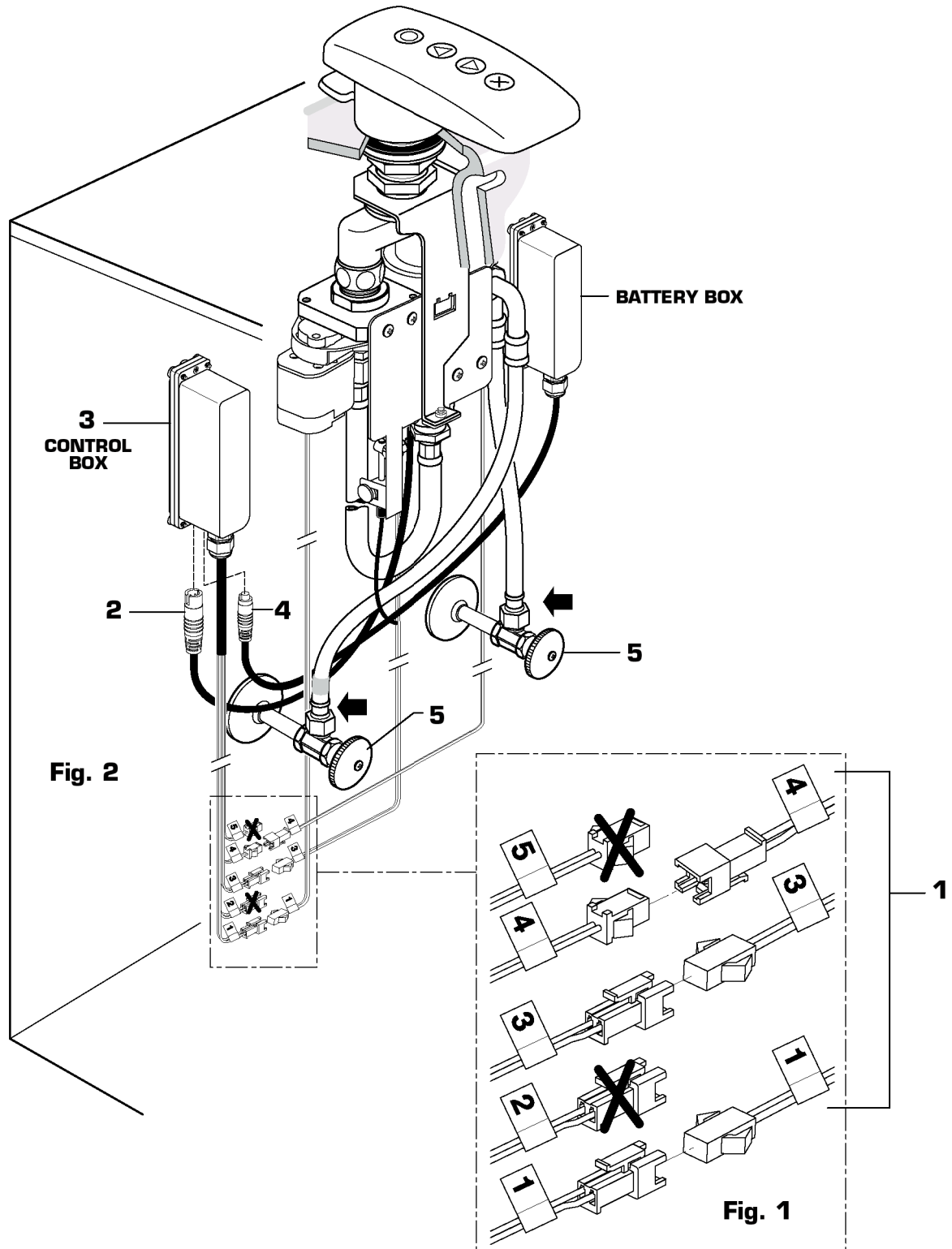


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7 Installation

WIRE CONNECTIONS

- Connect the number 4, 3 and 1 CONNECTORS (1) together as show in the illustration. **Fig. 1.**
Note: The number 5 and 2 connections are not use with the lavatory faucet.
- Connect the SPOUT CONNECTOR (2) to the CONTROL BOX (3). **Fig. 2.**
- Check that all connections are correct, then connect the BATTERY BOX CONNECTOR (4) to the CONTROL BOX (3). **Fig. 2.**
- Turn on WATER SUPPLIES (5) and check all connections for leaks. ➡
The installation of the Faucet is now complete.



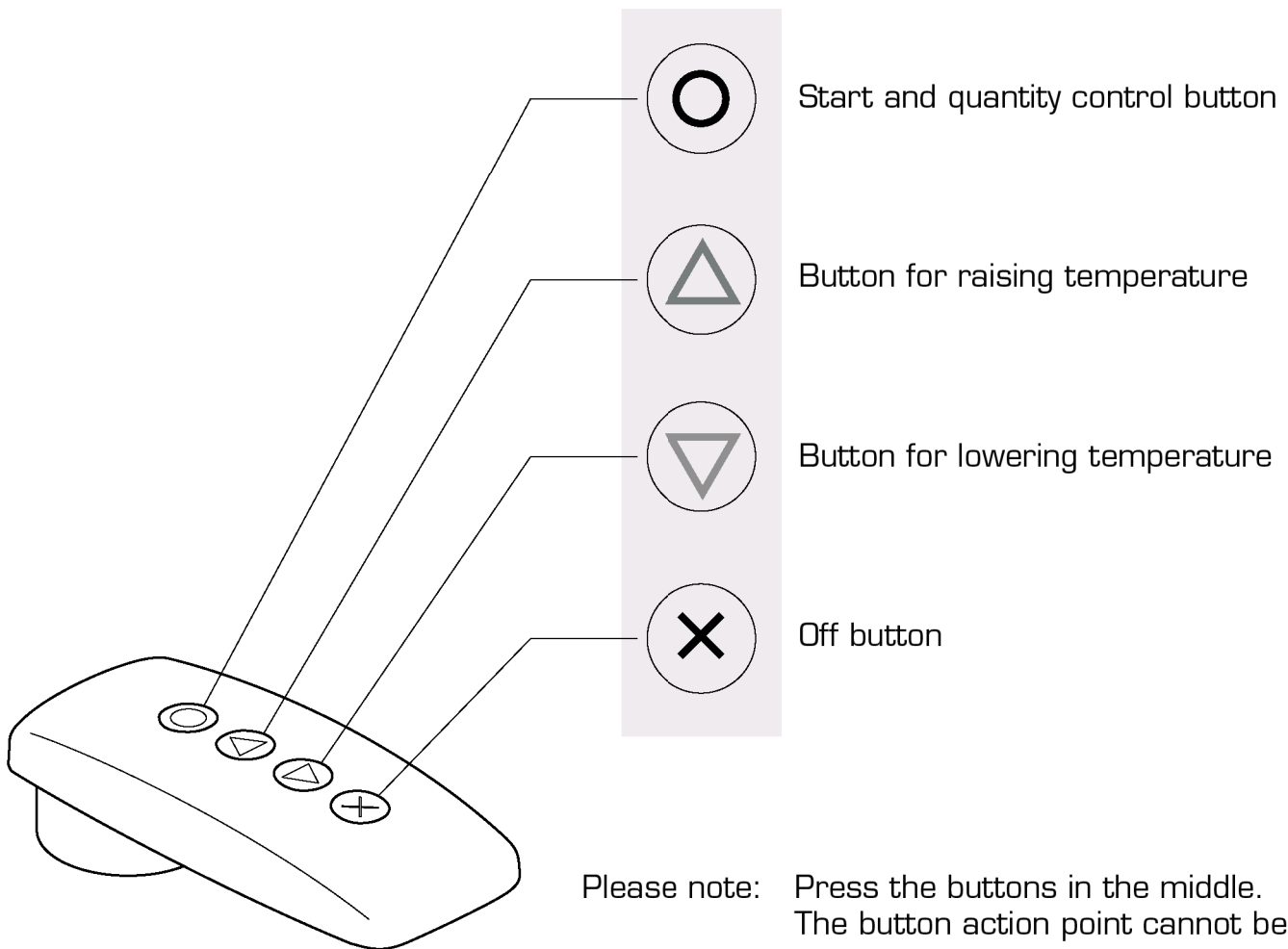
Important information on use

1. The electronic units in these instructions are protected against splash water and are designed to have a long service life.
2. The units may not be installed together with a steam bath.
3. **Care and maintenance:**
Only use soap-based, pH-neutral cleaning agents to clean the units. The outlets may be cleaned using a cloth soaked in a mixture of vinegar and water in order to prevent the build-up of lime scale. In addition, a standard flat or small brush can be used. Abrasive or scouring cleaning agents and disinfectants or such agents containing alcohol, ammonia, hydrochloric acid or phosphorus must not be used under any circumstances.

After use, dry the unit with a cloth. Make sure that the bathroom is adequately ventilated. These measures also prevent the build-up of lime scale on tiles and mould in joints.
4. Batteries may explode if you attempt to take them apart or recharge them.
CE The CE symbol is a European Union directive conformity symbol.

1 Operating Instructions

Operating elements (buttons)

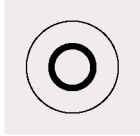


2 Operating instructions

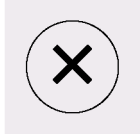
FUNCTIONS

On/Off Functions

- The buttons are activated by pressing lightly in the middle. They have been set to not turn on unintentionally when wiped with a soft, damp cloth.
- When this button is pressed, the water begins to flow at the previously set flow rate and temperature. The temperature and flow rate can now be regulated (see instructions below)



- Pressing this button stops the flow of water. If the water flow is reactivated within 120 seconds, the set flow rate and temperature are retained. After 120 seconds, the water flow rate and mixed water temperature return to the pre-programmed value.



Adjusting the temperature

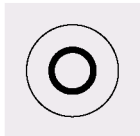


- The temperature can only be adjusted when the water is flowing. By pressing one of these buttons, the desired mixed water temperature can be changed in increments of 2°F (1°C). (Button with red symbol increase temperature, button with blue symbol decrease temperature). Once a temperature of 109°F (43°C) has been reached, the temperature can only be increased in increments of 0.5°. **Please note:** Temperatures of 113°F (45°C) and above can result in scalding. The maximum temperature that can be set is 118°F (48°C).



- **Please note:** The temperature can only be changed by repeatedly pressing the buttons. Once the unit has been turned off (by pressing the off button), the set temperature is retained for 120 seconds. After this, the temperature returns to the pre-programmed value. **Please note:** Temperatures in excess of 109°F (43°C) are also retained for 120 seconds.

Regulating the water quantity



- When the unit is turned on, the water quantity can be changed by pressing this button. A five-stage loop then runs. The direction (either an initial increase or decrease in volume) is determined by the programme settings (see Section 4). The water quantity can be altered by holding the button down. Once the unit has been turned off (by pressing the off button), the set flow rate is retained for 120 seconds. After this, the flow rate returns to the pre-programmed value. **Please note:** This Unit features a flow stabiliser, which only permits a certain water quantity. It is therefore not possible to increase the water flow, beyond 2.0 GPM (7.6L/min)

3 Operating instructions

SAFETY FEATURES

Safety shut-off

There are a number of safety features in order to prevent the risk of scalding in the event that a component is faulty:

- The thermostat does not permit temperatures in excess of 118°F (48°C). (= maximum temperature).
- An additional electronic safety switch turns the unit off if the current temperature is more than 9°F (5°C) higher than the preselected temperature. **Please note:** This may occur if the unit has been heated up after a mixed water temperature of, e.g. 113°F (45°C), has been set, and, if the unit has not been used for more than 120 seconds, when switched on again the temperature returns to the preselected value of 99°F (37°C) (for programmed temperature see step 4). There is therefore still hot (not cooled) mixed water in the unit, which results in the switch being triggered, since the temperature difference is greater than 9°F (5°C). In this case, turn on the unit several times in a row. As a rule, turning the unit on twice is sufficient to cool down the components.

Water saving mode

- To prevent unintentional water consumption, the electronics automatically turn the unit off after 30 minutes. The unit can be used again immediately without any restrictions.

4 Operating Instructions

PROGRAMMING THE TEMPERATURE AND WATER QUANTITY

- The initial settings (temperature and flow rate) can be individually selected/pre-programmed for all units. This presetting is saved and called up each time the unit is operated. The presetting can be changed and resaved at any time. Please note: The settings are not altered when the batteries are changed.

Programming the initial temperature and water quantity

- The temperature and water quantity can be easily saved. First of all, the unit must be turned on by pressing the **O**-button. The temperature and water quantity are set as described in Section 2. The current temperature and water quantity settings are saved by pressing the **Δ** and **∇** buttons simultaneously for 5 seconds. The unit stops the flow of water - this shows the user that the values have been successfully saved. The direction of flow change (i.e. whether the flow rate is increased or decreased when the **O**-button is pressed for the first time) is saved at the same time as the temperature and flow rate. Prior to saving, the electronics recognise the direction of the last change in volume as the preferred direction to be saved. The preset temperature and quantity values are automatically set each time the unit is used. These values can be reprogrammed or changed at any time.
Please note: For safety reasons, temperatures in excess of 109°F (43°C) cannot be saved (risk of scalding).
Please note: Only perform settings when there is a hot and cold water supply connected to the unit. For installation-related reasons, supplying the unit with hot water may take some time (cooling of the supply line, no ring water supply).
Please note: This unit features a flow stabiliser, which only permits a specific water quantity. It is therefore not possible to increase the water flow beyond 2.0 GPM (7.6 L/min).

5 Operating Instructions

OPERATION WITH A CONTINUOUS-FLOW WATER HEATER

Hydraulically controlled continuous-flow water heater

- With a hydraulically controlled continuous-flow water heater, the flow rate of units cannot be reduced due to the heater's preset heating capacity. In this case, always use the maximum jet intensity.

Thermally controlled continuous-flow water heater

- Thermally controlled continuous-flow water heaters are recommended. There are no known restrictions when using such heaters.

6 Operating Instructions

SELF-CALIBRATION

- Under certain conditions the electronics perform self-calibration. For this purpose, the motor used for setting the temperature is activated for approx. 10 seconds. During this time, the unit cannot be started.

7 Operating Instructions - TROUBLE SHOOTING

| Problem | Possible cause | Remedy |
|---|--|---|
| No reaction when button is pressed | Batteries empty | Change battery (see Service step 1) |
| | Push buttons (piezo element) do not work | Push button in middle/apply greater pressure |
| Temperature does not change when button is pressed | Push buttons (piezo element) do not work | Push button in middle/apply greater pressure |
| | Thermostat defective or soiled | Cut off water supply Clean or replace thermostat (see Service step 3) |
| | Motor on thermostat does not work | Replace servomotor (see Service step 3) |
| Water flow cannot be stopped | Push buttons (piezo element) do not work | Push button in middle/apply greater pressure |
| | Valve defective | Cut off water supply Replace valve (see Service step 4) |
| | Motor on valve does not work | Cut off water supply Replace servomotor (see Service step 5) |
| | Electronics faulty | Cut off water supply Replace electronics box (see Service step 8) Perform calibration See Operating instructions (Step 4) |
| No water | Water supply | Check water supply Open angle valves Are there kinks in the hoses? |
| | Motor does not open | Check/replace batteries (see Service step 1) Check plug contacts, check valve (free movement) Replace servo-motor (see Service step 5) |
| Water quantity too low | Electronics faulty | Cut off water supply Replace electronics box (see Service step 8) Perform calibration See Operating instructions (Step 4) |
| | Water supply | Open angle valves Are there kinks in the hoses? |
| | Thermostat | Check/clean filter (see Service step 3) |
| | Presetting | Increase initial water Perform calibration quantity See Operating instructions (Step 4) |

7 Operating Instructions - TROUBLE SHOOTING

| Problem | Possible cause | Remedy |
|--|---|---|
| Temperature too low | No more hot water | Check boiler |
| | Soiled control | Set water temporarily to COLD and reset to desired temperature Check/clean filter Check domestic water filter |
| Temperature too high | Soiled control | Set temporarily to 118°F (48°C) and reset to desired temperature Check/clean filter (see Service step 3) Check domestic water filter |
| Temperature fluctuates | Thermostat defective | Replace thermostat (see Service step 3) |
| | Motor on thermostat does not work | Replace servo-motor (see Service step 5) |
| | Temperature sensor defective | Change temperature sensor (see Service step 7) |
| Unit turns off after about 10 seconds | Battery has reached end of service life | Change batteries (see Service step 1) |
| Unit turns off after temperature has been set | Safety switch-off | See Operating instructions (Safety Features 3) |

1 Service

Battery

- **Important:** Only use high-quality alkaline batteries, size C. (IEC designation: LR 14). Rechargeable batteries may be used, however these are not recommended, due to the low cell voltage.
- **Please note:** When changing the battery, it is important to ensure that all parts are dry! Moisture in the battery compartment must be avoided.
- The electronics constantly monitor the battery state. Before the batteries are completely empty, the operating mode is changed as follows:
After turning on, the unit automatically shuts down after 1 second. When switched on again, unrestricted use is possible. On switching on again, this mode reoccurs.
Please change the batteries immediately, as the unit can only be used another 15 times. Following this, the unit remains switched off.
- The plastic battery box is located below the washbasin on the right side. It is attached to the back wall with Velcro tape or mounting screw. The battery box bears the label BATTERY.

BATTERY BOX / BATTERIE BOX

USE HIGH QUALITY
ALKALINE BATTERIES
ONLY

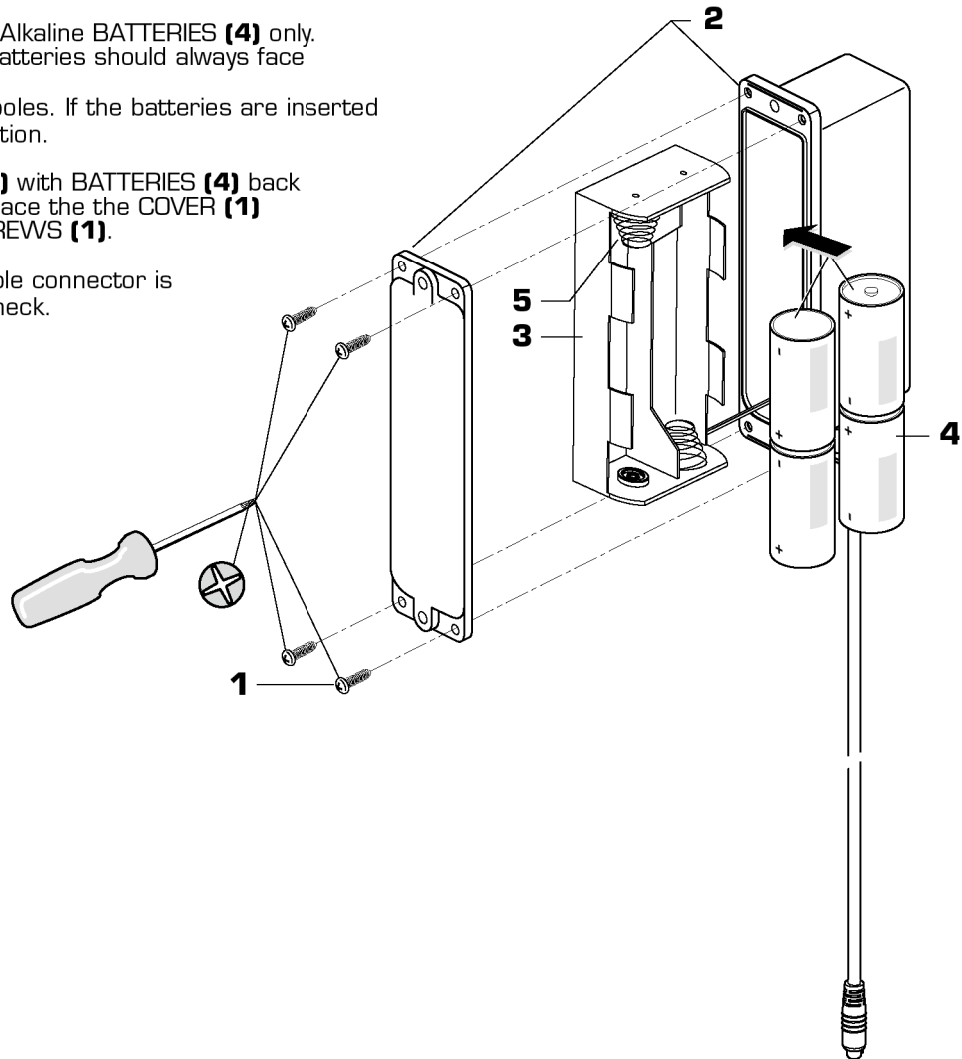


NUR HOCHWERTIGE
ALKALINE BATTERIEN
VERWENDEN

4 x 1,5 V LR14 / C-SIZE / BABY

Changing the battery

- Remove the four COVER SCREWS (1) from the BATTERY BOX (2) and pull out the BATTERY HOLDER (3). Remove the old Batteries.
- Install four "C" size High Quality Alkaline BATTERIES (4) only.
Note: The negative end of the batteries should always face toward the SPRING (5).
- **Important:** Check the battery poles. If the batteries are inserted incorrectly, the unit will not function.
- Install the BATTERY HOLDER (3) with BATTERIES (4) back into the BATTERY BOX (2). Replace the the COVER (1) and tighten the four COVER SCREWS (1).
- **Important:** Ensure that the cable connector is securely mounted. Functional check.



2 Service

WORKING ON THE VALVE UNIT

Preparation

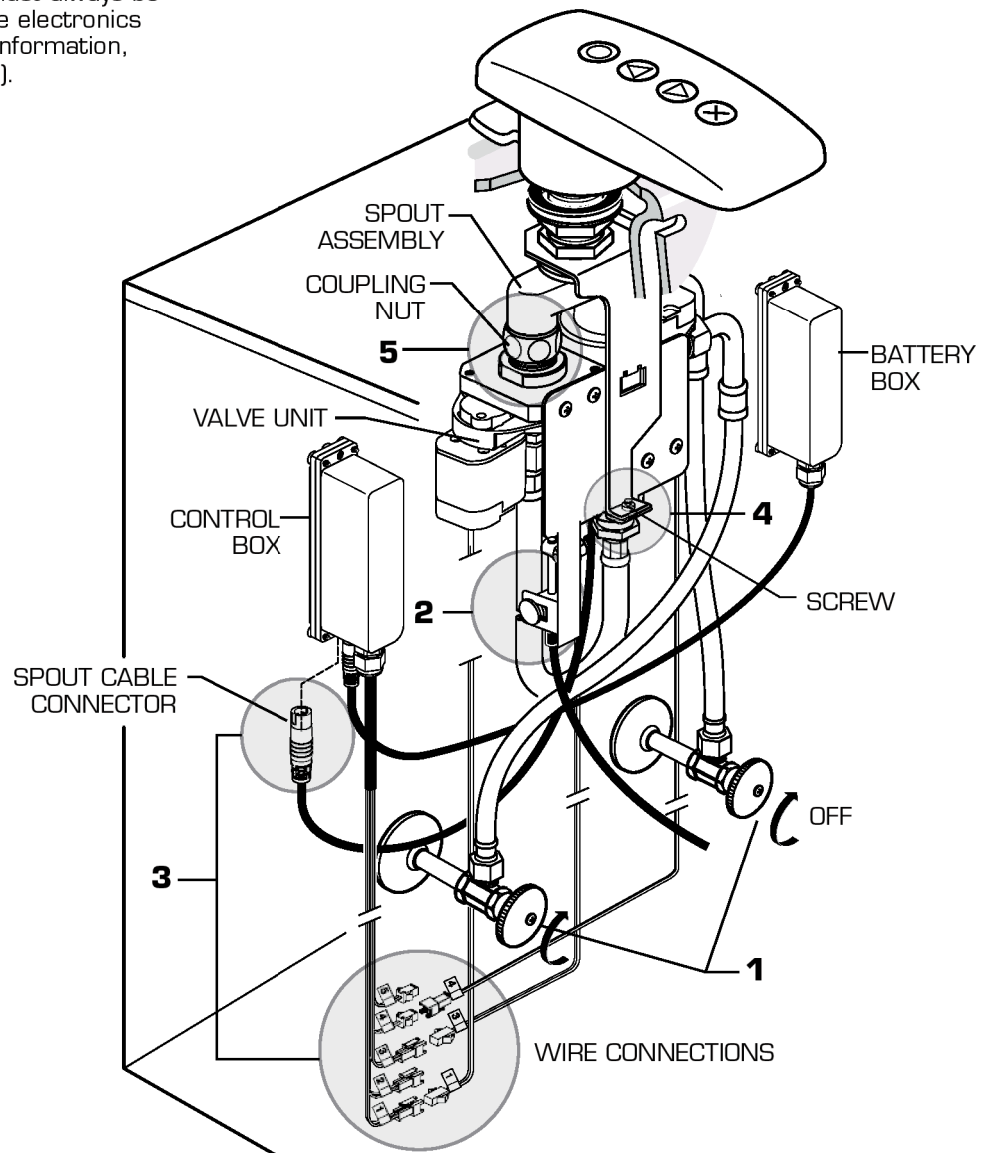
- When performing any maintenance and repair work on the thermostat cartridge, stop valves, servo-motors, temperature sensor and non-return valves, it is recommended that the VALVE UNIT be removed from the SPOUT ASSEMBLY. Proceed as follows.

1. Close the hot and cold water supply lines (angle valves, main or central stopcock).
2. Disconnect POP-UP ROD from CABLE ASSEMBLY.
3. Remove the SPOUT CABLE CONNECTOR from the electronics box below the washbasin. Disconnect the three WIRE CONNECTIONS from the CONTROL BOX.
4. Remove SCREW using 4mm Hex Wrench.
5. Loosen COUPLING NUT using adjustable Wrench. Remove VALVE UNIT from SPOUT ASSEMBLY.

Please note: Maintenance and repair work on the thermostat cartridge, stop valve, servo-motors, temperature sensor and non-return valves may now be performed.

- To reassemble follow the Installation Instructions, steps **1**, **2** and **3**.

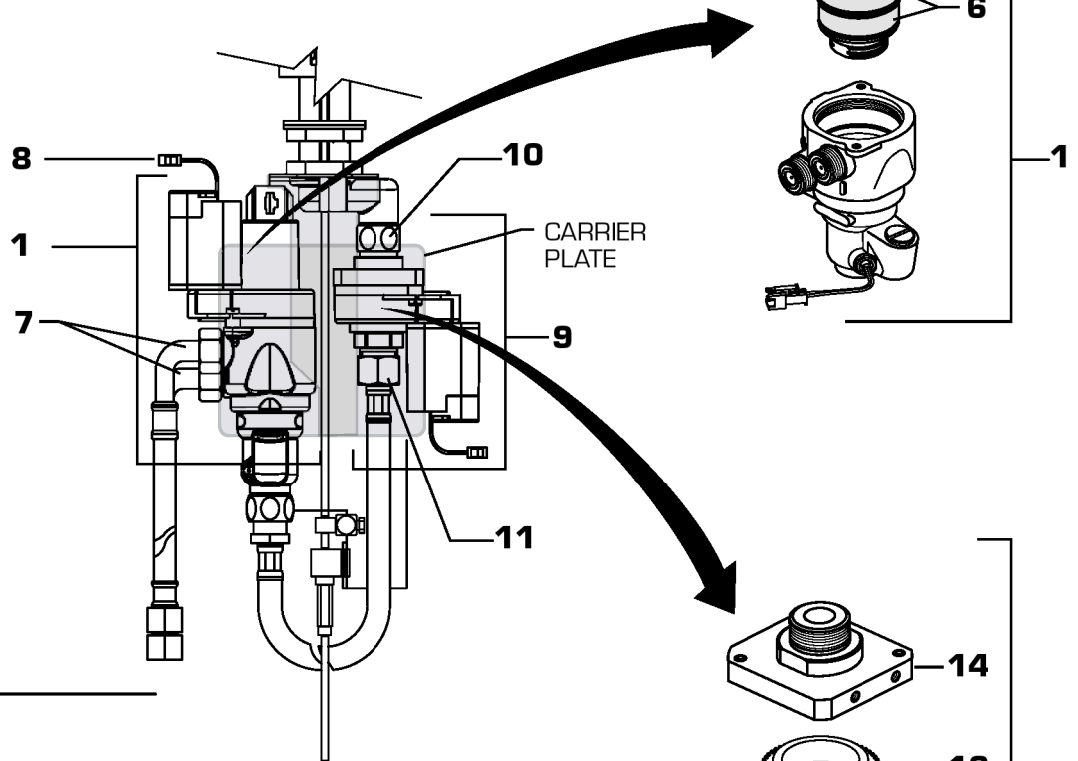
Please note: The complete unit must always be replaced. After being replaced, the electronics must be recalibrated, for further information, see Operating instructions (Step 4).



3 Service

THERMOSTAT CARTRIDGE (CLEANING AND REPLACEMENT)

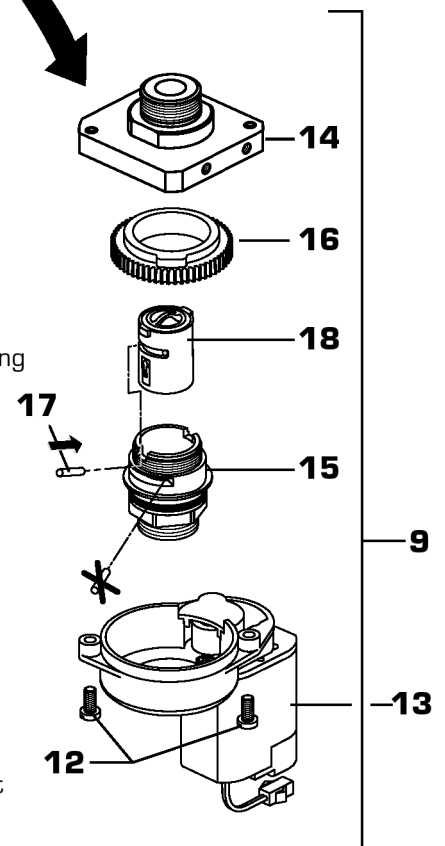
- Carry out the preparatory work described in Service, Step 2.
- Unscrew the two SCREWS (2) on the servomotor housing (3). Take off the unit and remove the temperature adjuster nut (4). The THERMOSTAT CARTRIDGE (5) can now be twisted out (if necessary, hold with a suitable tool).
- Clean the filter screens (6) under running water. Thread a new or cleaned THERMOSTAT CARTRIDGE (5) into the THERMOSTAT HOUSING (1) and tighten with wrench.
- Re-assemble the THERMOSTAT HOUSING by reversing the steps above. Attach the connector (8). Assembly of the complete unit is described in the Installation Instructions Steps 1, 2 and 3. After being replaced, the electronics must be recalibrated, for further information, see Operating Instructions Step 4.



4 Service

REPLACING VALVE

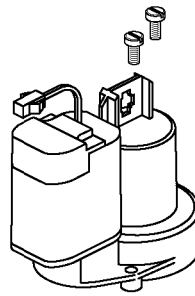
- Carry out the preparatory work described in Service, Step 2.
- The VALVE HOUSING (9) is attached to a metal carrier plate. Unthread the fastening screws from VALVE HOUSING (9). Remove VALVE HOUSING (9) from the carrier plate. Remove HOSE (11).
- Remove the two screws (12) from the SERVO-MOTOR HOUSING (13) and take the TOP (14) off the SERVO-MOTOR HOUSING (13).
- Unscrew the HEAD PIECE (15) size 24 (with toothed wheel). Hold in place with a size 27 spanner. Remove the toothed wheel (16) and pull out the PIN (17). The VALVE (18) can now be removed and replaced.
- Insert the VALVE (18) in its closed state and insert the PIN (17) in the position shown. Thread in the HEAD PIECE (15) and install toothed wheel (16). Torque to approx. 5 Nm.
- Reattach the SERVOMOTOR HOUSING (13), making sure that its in the correct position. Reconnect the COUPLING NUT (10), HOSE (11) and attach the valve unit onto the carrier plate. Attach the connector.
- After replacing the stop valve, the electronics must be recalibrated, for further information, see Operating Instructions Step 4.



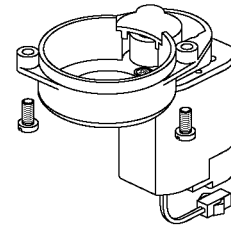
5 Service

REPLACING THE SERVO-MOTORS

- Refer to Service, Steps 3 and 4 for the replacement of the SERVO-MOTORS.



Thermostat Servo-Motor

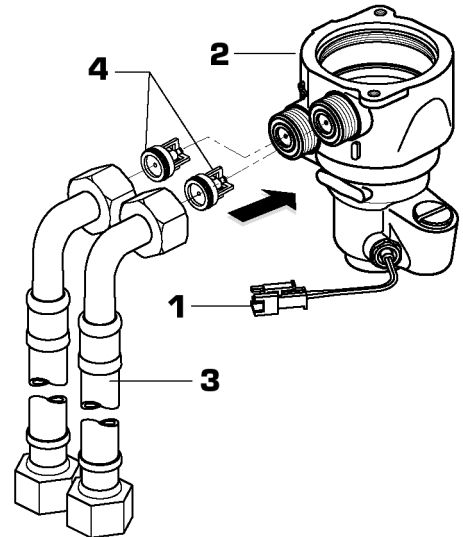


Stop Valve Servo-Motor

6 Service

REPLACING THE CHECK VALVES

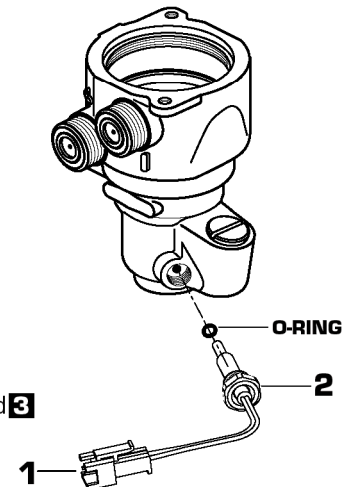
- The CHECK VALVES (4) valves are located in the supply line connections of the thermostat housing. Carry out the preparatory work described in Step 2. Remove the CONNECTOR (1).
- Remove both INLET HOSES (3).
- Replace the CHECK VALVES (4).
- Please note:** Ensure that they are installed in the correct position.
- Reconnect the INLET HOSES (3). Attach the CONNECTOR (1).
- Assembly of the complete unit is described in the Installation Section, Steps 1, 2 and 3.



7 Service

REPLACING THE TEMPERATURE SENSOR

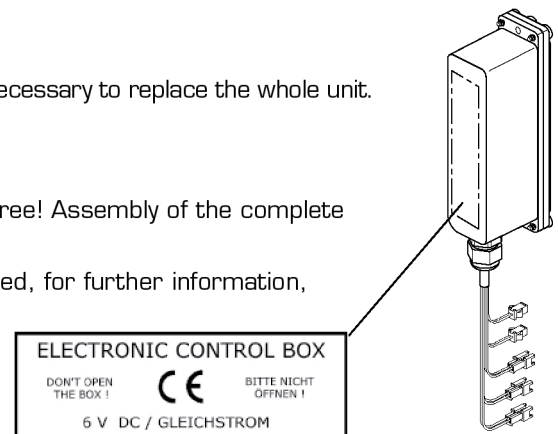
- Carry out the preparatory work described in Step 2.
- Remove the CONNECTOR (1).
- Rotate the TEMPERATURE SENSOR (2) counter clock-wise to remove.
- Replace with new TEMPERATURE SENSOR (2) and tightening torque approx. 5 Nm.
- Attach the CONNECTOR (1).
- Assembly of the complete unit is described in the Installation Section, Steps 1, 2 and 3 pages 2 and 3. After replacing the temperature sensor, the electronics must be recalibrated, for further information, see Service, Step 9.



8 Service

REPLACING THE ELECTRONIC BOX

- The electronics box must not be opened under any circumstances. It is necessary to replace the whole unit.
- Remove all connectors. Unscrew the electronics box and replace. Attach all connectors.
- Please note:** Make sure that the number codes on the connectors agree! Assembly of the complete unit is described in the Installation Section Step 6.
- After replacing the electronics box, the electronics must be recalibrated, for further information, see Operating Instructions, Step 4.



9 Service

CALIBRATE THE UNIT

- It is necessary to calibrate a unit each time the servomotors, electronics box, the thermostat cartridge or temperature sensor are replaced. The calibration values for the sensor and the overlapping of the valves connected must always be saved in the program memory (CU).

Please note: Steps 1 and 2 must be performed in succession.

1. Temperature adjustment. Turn the unit on by pressing the O-button. When switched on, keep the O-button and the and down simultaneously for approx. 5 seconds until the flow of water is stopped for approx. 10 seconds. Once the thermostat cartridge has been reset, the water begins to flow again. The temperature is now adjusted using the and buttons until a temperature of 100°F (38°C) is measured at the outlet. This is acknowledged with the O-button and the water stops flowing.

2. Flow adjustment. The flow rate is increased in increments with the O-button until a flow rate of 1.6 GPM (6 L/min) is reached for the basin unit and 2.1 GPM (8 L/min) for the bath and shower unit (measured at the outlet or shower head).

Please note: The water may only begin to flow after the O-button has been pressed several times. This is acknowledged with the X-button, and the calibration values for the temperature and minimum flow rate are saved.

The flow of water now stops to show that calibration has been carried out successfully.