CAROMA

# LIANO II PULL DOWN SENSOR SINK MIXER

## WATER EFFICIENT TAPWARE

## *INSTALLATION INSTRUCTIONS*

**Important Information**

* **Not suitable for gravity feed systems.**
* **Mixer is fitted with a 6.0L/min regulated check valve (27). This low flow rate may not be suitable for connection to some Instantaneous Gas Water Heaters, some Tempering Valves, some Solar Water Heaters & some Thermostatic Mixing Valves. If required, 6.0L/min check valve (27) can be replaced with 4.0L/min check valve (26) (Supplied in a bag) to get lower flow rate (See "Replacing Regulated Check Valve"). Check with the manufacturers of these products.**
* **A G1/2 male/male 'Y' fitting (47) or a dual outlet stop cock must be used as shown in Fig.1 & Fig.5.**
* **All pipework must be thoroughly flushed prior to installation, as foreign materials may block the flow regulating device and reduce the flow of water.**
* **The Solenoid control box can be Mains powered, Battery powered or Battery back-up.**

**Handle position adjustment**

The mixer is supplied as Front facing which is to be installed as shown in **Fig. 2**. To change the handle position to Right hand facing version;

1) Remove screw (23) using 2.0mm allen key (48) & rotate the mixer body (9) 90 degrees clockwise and align the hole on the holder arm (24) with the secondary hole on the swivel insert (22). If required, the holder arm (24) can also be lifted up to identify the secondary hole on swivel stop insert (22). See **Fig. 3**
2) Insert the screw (23) back into the hole in the holder arm (24) and screw it in using 2.0mm allen key (48). DO NOT OVERTIGHTEN.

**Installation**

*Note: For thin decks, a triangle spacer (20) is supplied, which can be fitted prior to the flat seal (13).*

1) Ensure 'O'ring (11) is fitted into groove in base ring (10).
2) Insert the inlet connection ends (18) of cold flexible tail (17), hot flexible tail (19) & outlet flexible tail (21) along with red sensor cable (34) and black sensor cable (36) through the hole in the deck. Insert threaded tube (12) of mixer into deck hole, position mixer as required fit washer (14) together with flat seal (13) over threaded tube of mixer as shown in **Fig. 1.** Screw clamp ring (15) onto threaded tube until it contacts washer (14) & the flat seal (13) has contacted the underside of the deck. Tighten two screws (16) equally until mixer assembly is clamped firmly to the deck. DO NOT OVERTIGHTEN.
3) **Solenoid Control box installation:**
Determine a suitable position under the sink to attach the control box
**For installation into cavity wall:** (Plasterboard)
i) Drill two Φ6mm holes 52mm apart horizontally as shown in Fig. 1.
ii)Insert small end of wall plugs (30) into drilled holes and tap until flush with wall/tile face.
iii)Insert screws (31) into wall plugs, screw them until the head is 6mm away from wall/tile face as shown in Fig. 4.
iv)Mount the control box (32) onto the screws (31).
**For installation into solid walls; (brick, concrete etc.)**
i) Drill two Φ6mm holes at 52mm apart horizontally as shown in Fig. 1.
ii)Insert the tip of the screws (31) into holes and screw them until the head is 6mm away from wall/tile face as shown in Fig. 4.
iii)Mount the control box (32) onto the screws (31).

**For installation into timber stud:**

i) Drill two holes at 52mm apart horizontally to suit the self tapping screws supplied as shown in Fig. 1.
ii)Insert the tip of the screws (31) into holes and screw them until the head is 6mm away from wall/tile face as shown in Fig. 4.
iii)Mount the control box (32) onto the screws (31).

4) *Note: The stop cocks (41) & (42), tempering valve (46), connection hoses (44), (45 and 'Y' fitting shown are not supplied.*
Flexible Tail Connections:

a) **Sensor activated 'Cold' water bypass (Fig.1)-**
Screw the G1/2 'Y' fitting (47) onto the cold stop cock (41). **C**onnect the cold flexible tail (17) from the mixer (9) to one of the male branches of 'Y' fitting (47), connect the red 'hot' flexible tail (19) from mixer (9) to hot water stop cock(42), connect 'cold water sensor bypass'outlet flexible tail (21) to the outlet connector of solenoid control box (32), then connect the additional flexible hose (supplied) to remaining outlet of 'Y' fitting (47) on cold stop cock (41) and other end to the inlet connection of control box (32). Hand tighten all connecting nuts (18) until seal contacts the sealing face of the connection ends, then tighten a further one turn to provide a watertight joint.

b) **Sensor activated 'Tempered' water bypass (Fig.5)-**
Screw the G1/2 'Y' fitting (47) onto both 'hot' & 'cold' connections as shown in Fig.5. Connect 'blue' flexible tail (17) from mixer (9) to one of the branches of 'Y' fitting on cold stop cock, connect the red flexible tail (19) to one of the branches of 'Y' fitting on hot stop cock. Connect one end of blue 'cold' flexible hose (44) to remaining outlet of 'Y' fitting on cold stop cock and other end to the cold inlet of tempering valve (46). Then connect one end of the 'red' hot flexible hose (45) to remaining connection end of 'Y' fitting on hot stop cock and other end to 'hot' inlet of tempering valve (46). Connect mixed water flexible tail (40) to mixed outlet connection end of tempering valve (46) and other end to inlet connector of control box (32).
**Important:** Flexible tails must not be kinked, twisted or in tension when installed. (Minimum Bend Radius:- 50mm)
Do not install flexible tails where subject to ultra violet light.

5) **Sensor cable connections**: While aligning the 'D' profile of male and female connectors, connect red cable male connector (34) to red cable female connector (35) of control box(32), connect black cable female connector (36) to black male connector (37) of control box (32), connect power supply cable connector(38) to the black female connector (39) of control box(32). Ensure all cable connectors are pushed in fully.
6) Plug in power supply (33) to standard power outlet, turn on.
7) Turn on Hot and Cold stop taps. Open mixer handle and run some water through, close. Check the connection ends to ensure there is no leakage. Tighten further if required.
8) Hold your hand approx. 30mm in-front of the sensor window to activate the handsfree waterflow, to turn off the water flow hold hand in-front of the sensor, a red light in the sensor window will blink and the waterflow will turn off.

**Adding/Replacing batteries**

1) Remove screws (49) using a phillips head screw driver then put the screws aside, Insert a flat blade screw driver in to the cover slot and pry it out to remove it.
2) Insert/replace 4 x 1.5V AA batteries following the "-" & "+" markings.
3) Fit the cover back on ensuring the seal is in place and compressed.

**Replacing Handle**

The mixer is fitted with a "Pin" handle (1) . To change the look of the mixer, a spare "Paddle" handle (29) is supplied in a spare bag. The handle can be replaced as follows:-

1) Carefully remove plug (4) before using a 2.5mm allen key (5) to loosen grub screw (2) and remove handle (1).
2) Fit handle (29) taking care that it is pushed fully onto cartridge stem, then tighten grub screw (2). Fit plug (4) together with 'O'-ring (3), taking care not to damage the decorative finish.

**Replacing Cartridge**

1) Turn off hot and cold water supplies.
2) Carefully remove plug (4) before using a 2.5mm allen key (5) to loosen grub screw (2) and remove handle (1). Remove cap (6) taking care not to damage the decorative finish. Unscrew nut (7) then pull out cartridge (8).
3) Ensure inside face of mixer body (9) is clean. Check that seals are in position in base of new cartridge (8). Fit new cartridge (8) into mixer body (9), taking care that two lugs on base of cartridge (8) fit into mating holes in mixer body (9).
4) Screw on nut (7). **Important:-** Nut (7) should be tightened to a torque of 9 Nm.
5) Replace cap (6), tightening by hand. Fit handle (1) taking care that it is pushed fully onto cartridge stem, then tighten grub screw (2). Fit plug (4) together with 'O'-ring (3), taking care not to damage the decorative finish.
6) Turn on water supplies and check operation.

**Replacing Regulated Check Valve**

1) Unscrew sprayhead (28) from pull down hose assembly(25).
2) Remove regulated check valve (27) fitted from top of the spread head (28) with a small allen key or a hook tool.
3) When replacing flow regulated check valve (26), be careful that the regulated check valve direction is correct as shown in **Fig. 1** and 'O' ring is not damaged or dislodged as it enters the bore.
4) Screw spread head (28) onto pull down assembly (25) then tighten by hand.

**IMPORTANT**

**Pressure & Temperature Requirements.**

- Hot and cold water inlet pressures should be equal.
- Static inlet pressure range : 150-800 kPa
  New Regulation:- 500 kPa maximum static pressure at any outlet within a building. (Ref. AS/NZS 3500.1)
- Maximum hot water temperature : 80℃.

**Deck Requirements**

- Deck thickness : 42mm maximum
- Tap body hole (in deck) : Φ34-36mm

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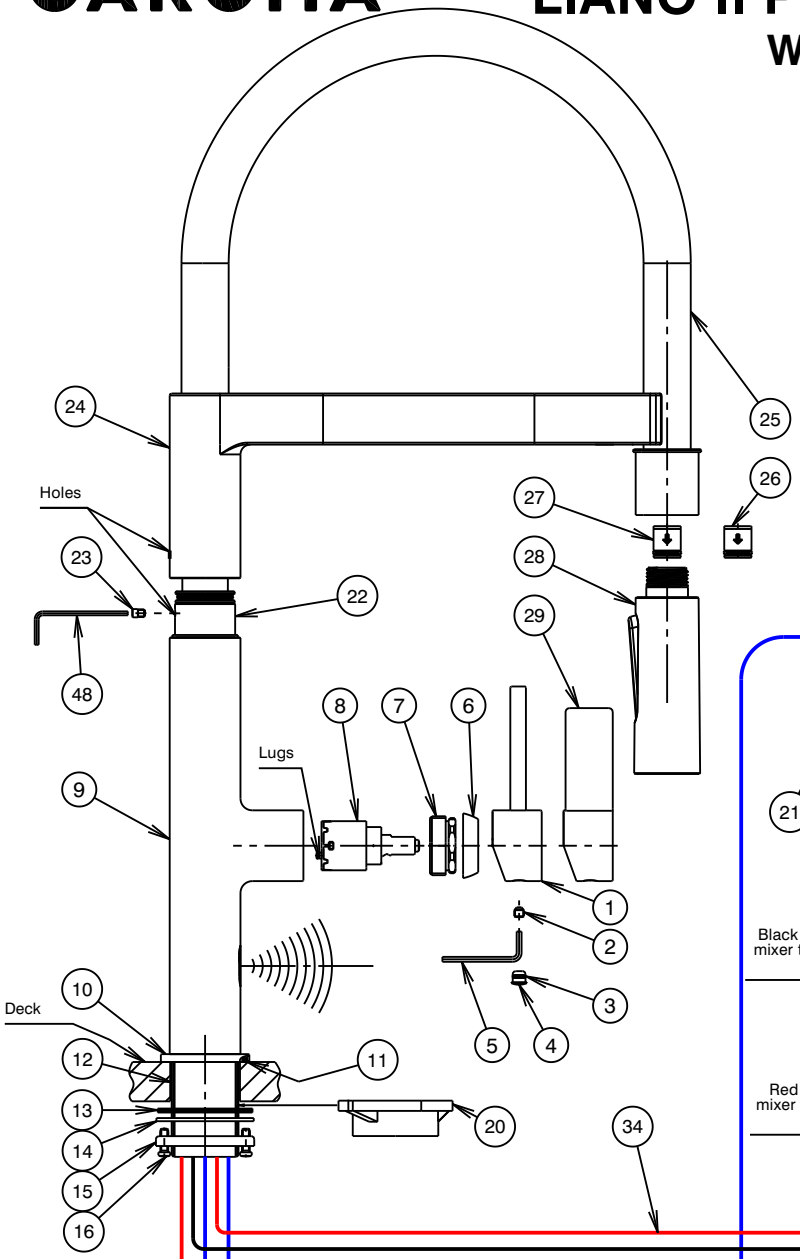



**Fig.1 - Sensor activated "Cold' water installation**
(Front facing handle set-up shown)

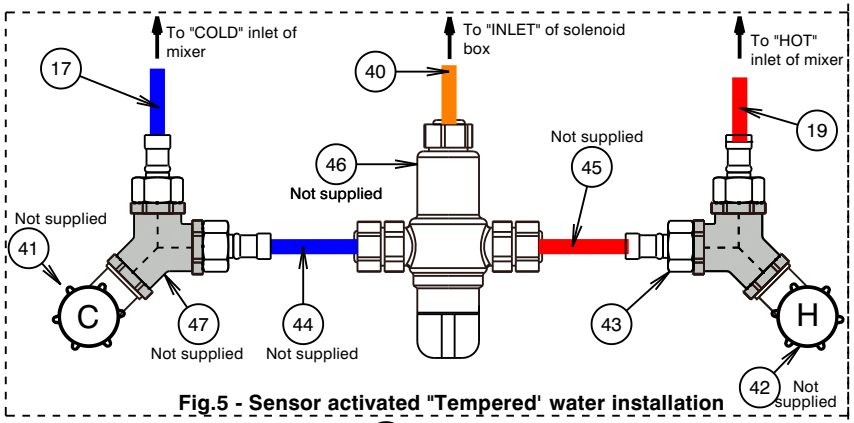



**Fig.5 - Sensor activated "Tempered' water installation**

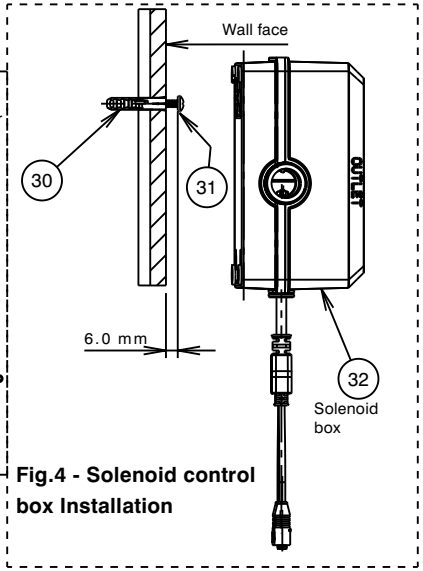
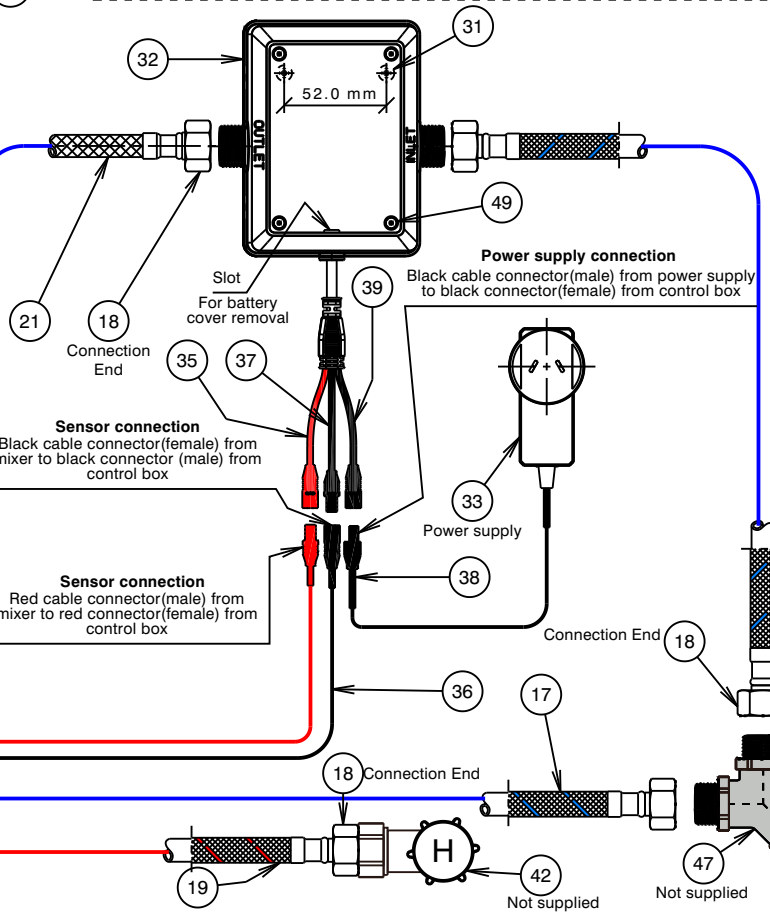



**Fig.4 - Solenoid control box Installation**



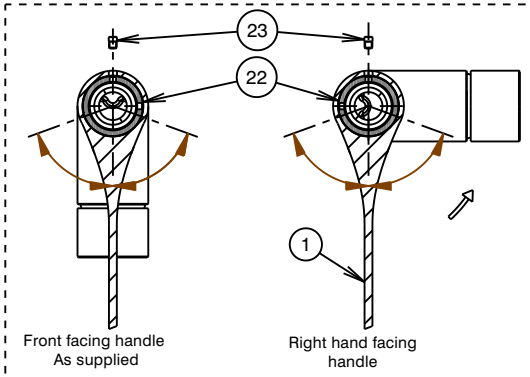




**Fig.2** **Fig.3**

**Handle position adjustment**

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