



*think*hotwater

readyhot[®]

Water Recirculation System

- **Installation**
- **Commissioning**
- **Owners (warranty)**

MODELS:

SN (Small New) **SE** (Small Existing)
LN (Large New) **LE** (Large Existing)

FOR ADVICE AND SERVICE:

CALL

1300 365 115 (AUSTRALIA)

Installations shall be in accordance with the manufacturer's instructions per the requirements of the Australian Standard Plumbing Code AS 3500. We recommend that you consult a Licensed Plumber in the installation of the DUX Readyhot[®] Recirculation System and install in accordance to the installation instructions and warranty conditions.

Be careful!

Do not plug the electrical cord into a power point until system is installed and in place. Operation of the system without being plumbed into the water lines may burn out the pump prematurely and void the warranty.

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1. Pre-Installation Checklist

New Home Model Contents (SN or LN)

Check the package contents. Your Readyhot Recirculation System includes:

- A pre-assembled Readyhot Recirculation System Controller/ Circulator Pump
- A plastic bag containing: one (1) hard wired push-button
- A plastic bag containing 1 remote button (transmitter), 1 remote receiver, one 12V battery, three grey wire nuts & three screws.
- Check the components for visible damage and contact your supplier immediately if any damage is found.

Existing Home Model Contents (SE or LE)

This is supplied with an electronic valve and a ½” retrofit kit.

The retrofit kit includes the following components,

- 2 x flexible hoses
- 2 x isolation valves (SE only)
- 2 x brass “T’s” & 4 x brass joining fittings
- Plumbing tape
- The LE is supplied with 1 x ¾” – ½” brass converters
- The SE is supplied with 1 x ¾” – ½” reducing socket for the solenoid valve

2. Make Sure You Have The Tools To Do The Job

No special tools are required to install the Readyhot Recirculation System other than those tools usually needed in any plumbing job.

They include:

- Pipe wrench or adjustable spanner
- Pliers
- Small Phillips head and medium flat head screwdriver
- Wire strippers
- Drill and 16mm drill bit

3. Determine Mains Pressure Prior To Installation

New Home Installation

- To achieve ultimate performance from your Readyhot Recirculation System, mains pressure should be below 800kpa. If mains pressure is higher than 800kpa, please install a pressure limiting valve (PLV) at mains water inlet.

Retrofit Installation

- It is crucial that the hot line and cold line pressure is equalised for successful operation in the retrofit mode. This requires equal pressure in all parts of the loop to achieve this, remove the PLV from the hot water system, and install PLV at the mains, or prior to any branch off.

4. Determine Where To Install Your Readyhot System

New Home Installation

- You would have purchased a Readyhot Recirculation System “New Home” model. This installation method requires a dedicated return line, running from the furthest outlet in the house, back to the hot water system & attached to the cold inlet, after the cold water shutoff valve. The Readyhot Recirculation System should then be plumbed into this return line, as close to the furthest water outlet as possible. For best results consider using $\frac{3}{4}$ " for the dedicated return line

Retrofit Installation

- You would have purchased a Readyhot Recirculation System “Existing Home” model, which includes the genuine Readyhot Recirculation System retrofit Kit. This should then be installed at the furthest hot water outlet from the hot water system.

5. Preparing The Large Pump Models For Installation

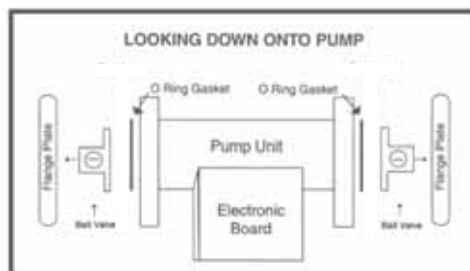
The LN & LE models are supplied with a flange mounting kit. This kit provides a $\frac{3}{4}$ " thread. If plumbing into a $\frac{1}{2}$ " thread, it will need to be reduced. (included in LE) Flange fitting instructions are included below, along with detail of the contents.

Flange Kit Setup

Place the $\frac{3}{4}$ " ball valve housing through the flange plate, position the O-ring & the rubber gasket between the pump and flange plate and secure with the 2 nuts & 2 bolts. Repeat opposite side.

Note: The screw adjustment on the ball valve may be used to close off the water supply if required.

If installing the large Readyhot using the retrofit kit, $\frac{3}{4}$ " – $\frac{1}{2}$ " converters will be required.



Flange Kit Assembly



Flange Kit Components

6. Fitting the Electronic Valve Assembly (existing home models)

Readyhot is fitted with an electronic valve for units installed in the retrofit. The cable is pre-wired into the units electronics pack, & simply needs connecting to the valve.

Valve Assembly & Valve Housing

- The valve assembly is attached to the outlet side of the Readyhot (fig 1)
- Once attached to the pump, the spade connector is attached (fig 2).

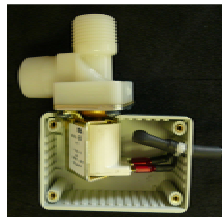


(Fig 1)



(Fig 2)

- Once the Valve assembly has been attached to the Readyhot and the spade connection has been made (fig 3), ensure that the connection box cover is replaced and fixed with the 4 screws supplied (Fig 4).



(Fig 3)



(Fig 4)

7. Pump Positioning

- Install the pump in the horizontal position with the Readyhot Recirculation System label facing upwards toward the sink (shown in picture 3).
- Be sure the arrow on the pump base points left to right with the line from the hot water tap attached on the inlet side of the pump and the line from the cold water tap attached to the outlet side. (The same side the electronic valve is on)
- If installed in the Retrofit position the pump may sit on the base of the cupboard & no bracketing is required as hoses or pipes will hold the unit in place.
- If installed with a separate return line ensure the unit is raised off the ground, on a footing.
- If system is installed in the open please ensure a waterproof cover is used to stop moisture from entering the electronics.

8. Installing Your System Using The Retrofit Kit

NOTE: The retrofit kit supplied with the Readyhot has been sized in accordance with water flow requirements. Use of other parts for retrofit installation may restrict water flow and reducing the performance of the Readyhot

- Turn off the house water supply
- Open the hot and cold taps at the fixture chosen for installation to relieve the water pressure from the hot and cold water pipes.
- Remove hot and cold water pipes to the sink/basin from the existing water supplies (picture 1).
- Assemble the T fittings as shown with thread tape and attach to the water outlets under sink/basin (picture 2).
- Install the ball valves to the T fittings and reconnect the water supply to the taps from the T fittings.
- Attach the hoses to your Readyhot™ Recirculation System. (picture 3)
- Ensure the ball valves are opened to allow water to flow. (Thread tape is recommended for the threaded fittings.)
- Refer to pages 3 & 4 – “Installing the Activation Button(s)” and “Wireless Remote Options”.
- Restore your water supply and run tap at furthest point to bleed air from pipe.
- Plug Readyhot™ Recirculation System into 240v power.

1. Turn off water supply and remove piping.



PICTURE 1

2. Install & tighten T's (included), attach ball valves. Install copper flex lines or any line with 12mm inside diameter.



PICTURE 2

3. Connect Ready-Hot™ System, install push button and plug in.



PICTURE 3

9. Post Installation Adjustments

Check the system carefully to make sure the installation is free of water leaks.

All Electronic Sensitivity Adjustments are pre-set at the factory. The sensor is designed to signal the controller to shut off automatically when hot water has arrived and not to reactivate if hot water is at the fixture. Review the troubleshooting page for additional information.

10. Installing the Activation Button(s)

- A. Drill a 16mm hole into the desired location
- B. Insert the 1.5 metre grey wire from the controller through the backside of the hole and connect it to the push button switch. Then, firmly insert the push button back into the hole. Additional push buttons can be spliced into the same wires. It is important to use a button comparable in quality to the button provided.

11. Installing Batteries to the Remote Button (Transmitter)

Open the back of the button with a small flat head screwdriver by inserting the screwdriver into slot to release catch. Load battery with negative side of battery toward spring. Carefully replace cover.

12. Wiring The Receiver for the Remote Button

The remote receiver is the white rectangular box with the three protruding wires: black, white & green. This unit is powered by the Readyhot. Wire the receiver directly to the corresponding wires on the controller by twisting each same coloured wire together with grey wire nuts provided.

The receiver should be mounted toward front of cabinet. (Range of transmitter is about 30 metres unobstructed). Strapping receiver to front of drain outlet facing outward will optimise reception.

**Wireless Remote
Receiver & Button**



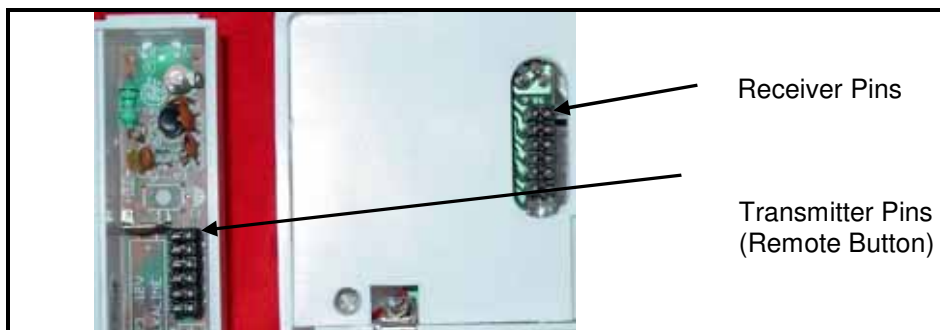
13. Testing the Readyhot (Check Water Temperature)

- Once installed, turn water supply on and plug in the system and switch power on.
- The pump will automatically turn itself on without the need to push the activation buttons.
- The Readyhot Recirculation System will continue to operate until the sensor signals that hot water has arrived, and then it will automatically shut off.
- To test the activation buttons, it will be necessary to wait until the water in the pipes has cooled. When this occurs, simply push the button and the pump will operate again.
- To operate the Readyhot Recirculation System from another location in the home, place remote button in desired location. Push remote button, wait for system to cycle.
- Time for hot water to arrive will vary depending on the homes plumbing layout and run distances, as well as other variables including pipe size and any restrictions to flow which may exist in the line.
- The Readyhot Recirculation System is designed to electronically shut off at a slight temperature rise preventing water from entering into the cold water line.
- The electronic ThermoSensor adjusts automatically to line temperature and shuts off as soon as a temperature rise is detected.

Note: The Readyhot Recirculation System is designed with an automatic safety feature that will shut off the pump in approximately three minutes. This safety device was installed in case the ThermoSensor or the hot water system is damaged.

14. Changing Transmitter Frequency

- If two Readyhot^M Systems are in operation in the same home or in a neighbour's home, it may be necessary to change the frequency on one of the units.
- Numbered jumper pins are inside the transmitter and receiver. The frequency can be changed by making identical pin changes to the receiver and sensor.
- Simply remove the corresponding pin on each and the frequency is changed.



15. Motion Sensors

- Motion sensors are available as an optional extra for the Readyhot system. They activate the Readyhot unit when they detect movement in the room where they have been installed.
- The motion sensors require 12v to run which is different to the requirement for the activation buttons of 5v.
- As a result if motion sensors are being installed they replace the activation buttons that are supplied with the pack.

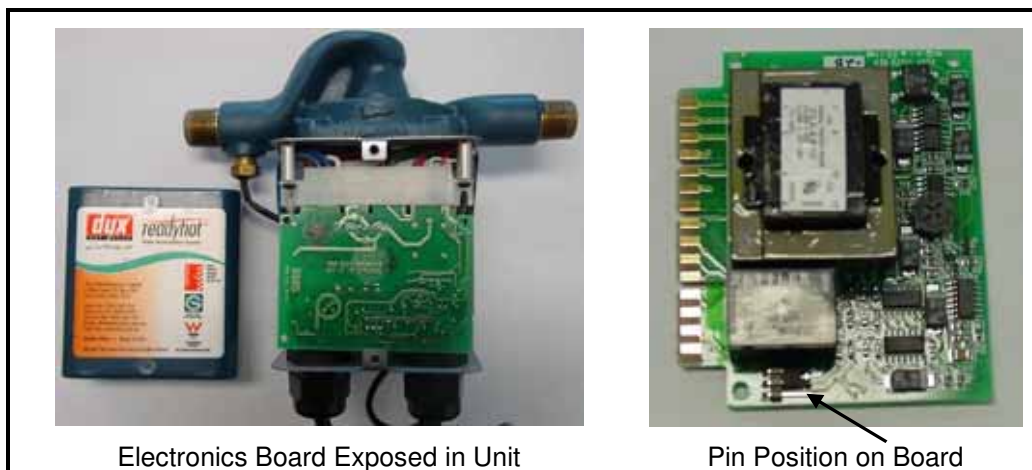


Hard Wired Motion Sensor



Remote Motion Sensor & Receiver

- To reconfigure the unit from 5V to 12V simply remove the board from the Readyhot, and switch the pins over from 5v to 12v.



Electronics Board Exposed in Unit

Pin Position on Board

TROUBLESHOOTING

Diagnosing Specific Problems

The pump does not run when button is pressed	<ul style="list-style-type: none"> • No power at electrical outlet • Power cord is not secured to pump and valve • Wire to push button is not connected well • The Readyhot has already been activated and the water in the hot pipes is already hot. • The remote button doesn't activate the Readyhot, however the hardwired button does 	<ul style="list-style-type: none"> • Check power point for electrical power • Plug the controller into a power point that has power • Shut off power, then make sure wires have good contact • Allow the water in the hot pipes to cool before re-activating the Readyhot • Replace the battery in the remote button
The water is not hot enough	<ul style="list-style-type: none"> • Pump was installed with water flow going in the wrong direction • Water flow restriction exists 	<ul style="list-style-type: none"> • Check the arrows on the housings of the pump to make sure it's pointing in the correct direction • Check the piping for obstructions or concealed valves in the line
There is hot water at the cold water tap	<ul style="list-style-type: none"> • Water temperature sensor issue 	<ul style="list-style-type: none"> • Check the cable of the water temperature sensor to make sur it is firmly connected
There is hot water in the cold water lines	<ul style="list-style-type: none"> • The pump is installed backwards • A new home pump (identified as a Readyhot without an external electronic valve) has been installed in the retrofit manner 	<ul style="list-style-type: none"> • Reinstall the pump correctly • Remove the Readyhot and install the correct retrofit model.
The pump has to run for a long time	<ul style="list-style-type: none"> • Mains pressure is higher than 800kpa (500 kPa in new home installation) • Pressure between the hot & cold lines have not been equalised 	<ul style="list-style-type: none"> • Install a pressure limiting valve to reduce mains pressure to 800kpa (or below as per code) • Remove PLV from the water heater and install a PLV at the main to equalise the pressure between the hot & cold line

IMPORTANT INFORMATION

1. This appliance is not intended for use by young children or infirm persons unless under adequate supervision by a responsible person.

2. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid hazard.

WARRANTY

DUX Manufacturing Ltd will replace without charge (at the Company's options) any Readyhot® Recirculation System pump, valve, or component part which is proven defective under normal use.

Warranty

Readyhot Pump Unit: Five-year conditional warranty from date of purchase

Accessories: (Hard-wired buttons and remote activators and receivers): One year conditional warranty from date of purchase.

Labour is not included under the DUX Manufacturing Ltd Warranty.

In order to obtain services under this warranty, it is the responsibility of the purchaser to remove the Readyhot® Recirculation System unit, and return it to the place of purchase. If the product or part in question contains no defects as covered in the warranty, the purchaser will be billed for parts and Labour charges in effect at the time of factory examination and repair.

Any Readyhot® Recirculation System product or part not installed or operated in conformity with Readyhot® Recirculation System instructions or which has been subject to misuse, misapplication, the addition of petroleum based fluids or certain chemical additives to the system, or other abuse, will not be covered by this warranty.

DUX MANUFACTURING LTD OFFERS THIS WARRANTY IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY WARRANTY IMPLIED BY LAW INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS IS IN EFFECT ONLY FOR THE DURATION OF THE EXPRESS WARRANTY SET FORTH IN THE PARAGRAPH ENTITLED "LIMITED WARRANTY" AS SHOWN ABOVE.

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*Note: Please attach your receipt as proof of purchase to this owners manual
This will validate the warranty on your Readyhot® Recirculation System*