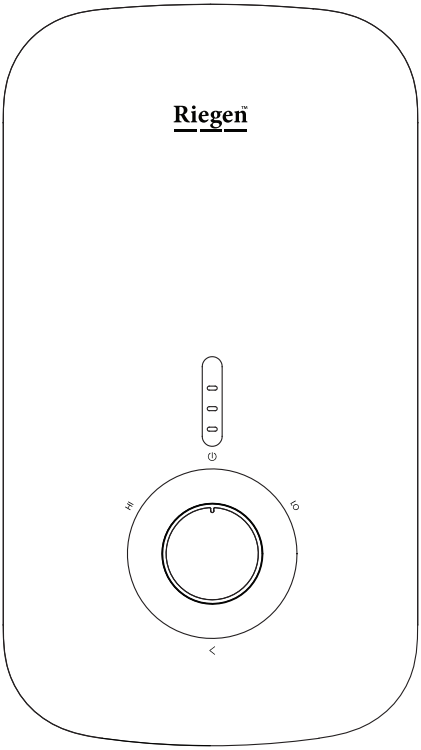
Riegen™



WATER HEATER / PEMANAS AIR

USER MANUAL / PANDUAN PENGGUNA

MODEL/MODEL	NOVA SERIES (RWH- N140N / RWH- N141D)

Please read this manual thoroughly and understand the content before use.
Sila baca panduan ini dengan teliti dan memahami isi kandungannya sebelum penggunaan.

SAFETY PRECAUTION
LANGKAH–LANGKAH KESELAMATAN

1. This installation shall comply with GP/ST/No.6/2016, **Guideline for the Design, Installa -tion, Inspection, Testing, Operation and Maintenance of water heater systems by energy Commission.**
   Pemasangan ini hendaklah mematuhi GP/ST/No.6/2016, ***Guideline for the Design, Instal lation, Inspection, Testing, Operation and Maintenance of water heater systems by energy Commission.***

2. Do not install reverse INLET & OUTLET and Stop Valve of heater.
   Jangan memasang "INLET & OUTLET" dan Injap Hentian pemanas dalam keadaan Songsang.

3. Do not install the heater where there is consistent spray directly over the unit.
   Jangan memasang pemanas air dimana terdapat semburan konsisten terus ke atas unit.

4. Do not connect the OUTLET to any tap or fitting that is not recommended by the manufacturer.
   Jangan sambungkan "OUTLET" pada mana-mana paip atau pemasangan yang tidak disyorkan oleh pengeluar.

5. Do not block the heater OUTLET in any way.
   Jangan menghalang "OUTLET" pemanas dalam apa jua cara.

6. Do not attempt to repair the heater without qualified technician.
   Jangan cuba untuk membaiki pemanas tanpa juruteknik yang berkelayakan.

7. This appliance is not intended for use by person (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been supervised or given instruction concerning use of the appliance by a person responsible for their safety.
   Perkakas ini tidak digalakkan untuk digunakan oleh orang (termasuk kanak-kanak) kurang upaya dari segi fizikal, deria atau mental, atau kurang berpengalaman atau pengetahuan, kecuali mereka diawasi atau diberi arahan mengenai penggunaan perkakas ini oleh orang yang bertanggungjawab keatas keselamatan mereka.

8. Children should be supervised to ensure that they do not play with the appliance.
   Kanak-kanak hendaklah diselia untuk memastikan mereka tidak bermain dengan perkakas ini.

9. Engage qualified electrician for installation.
   Gunakan juruelektrik yang berkelayakan untuk pemasangan.

10. Test water temperature with hand before using the shower.
    Uji suhu air dengan menggunakan tangan sebelum menggunakan pemanas air.

11. Check the RCD once a month (please refer to the Test Run of Heater) and consult professional for repair if there is any malfunction.
Pastikan RCD diperiksa setiap bulan (sila rujuk Pengujian Pemanas) dan hubungi juruteknik untuk sebarang pembaikian.

12. Metallic / chrome flexible hose and conductive control valve shall not be used.
Saluran getah logam / krom dan injap kawalan konduktif tidak boleh digunakan.

13. Use only new hoses to connect the appliance to the water supply. The old hose-sets should not be reused.
Gunakan hos yang baru untuk menyambungkan perkakas kepada bekalan air. Hos yang lama tidak boleh digunakan semula.

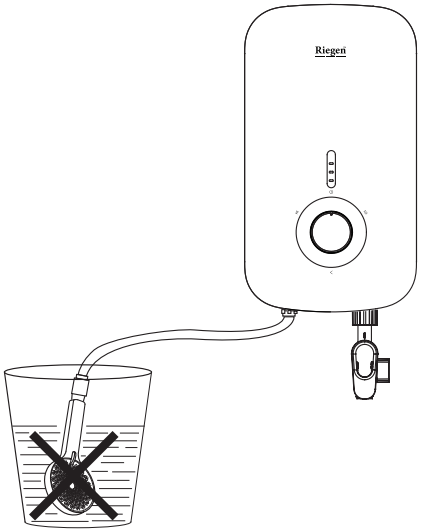
14. This appliance is not to be used for portable water supply.
Alat ini tidak boleh digunakan untuk bekalan air mudah alih.

15. Appliance intended to be permanently connected to the water mains and not connected by a hose-set.
Perkakas bertujuan untuk disambungkan secara kekal ke sesalur air dan tidak disambungkan dengan set hos.

15. WARNING: Metallic/chromes hose and conductive control valve shall not be used.
AMARAN: Hos logam/krom dan injap kawalan konduktif tidak boleh digunakan.

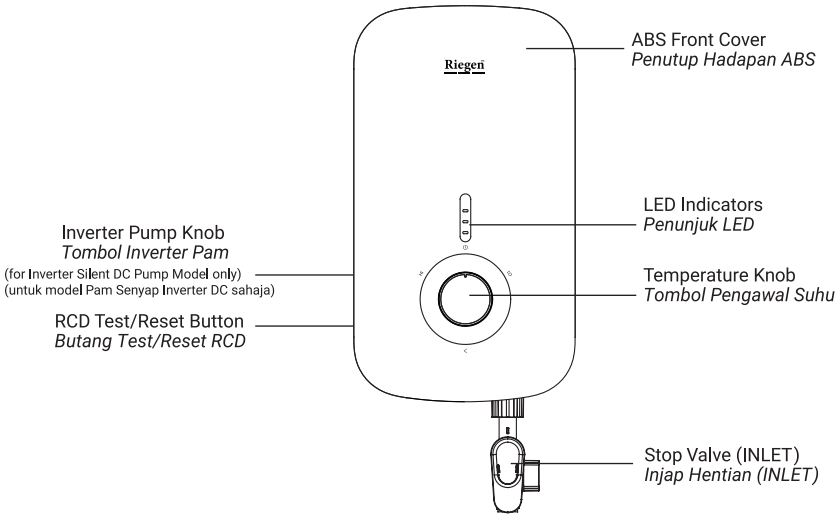
16. WARNING: Plug, socket and undersized cable shall not be used.
AMARAN: Palam, soket dan bersaiz kecil kabel tidak boleh digunakan.

17. Do not leave the hand shower idle in the pail. (refer below)
Jangan meninggalkan alat pancuran terbiar di dalam baldi. (rujuk dibawah)

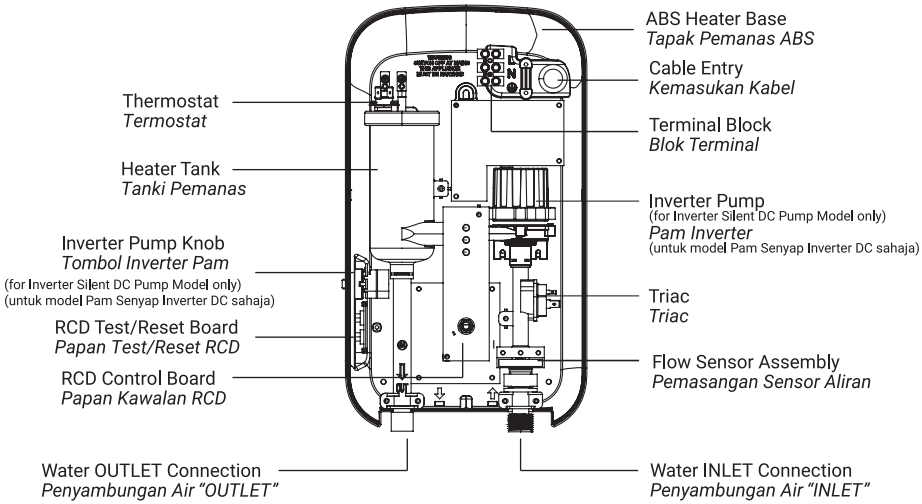


1. WATER HEATER PARTS IDENTIFICATION
PENGENALAN BAHAGIAN – BAHAGIAN PEMANAS AIR

EXTERNAL PARTS IDENTIFICATION
PENGENALAN BAHAGIAN LUAR

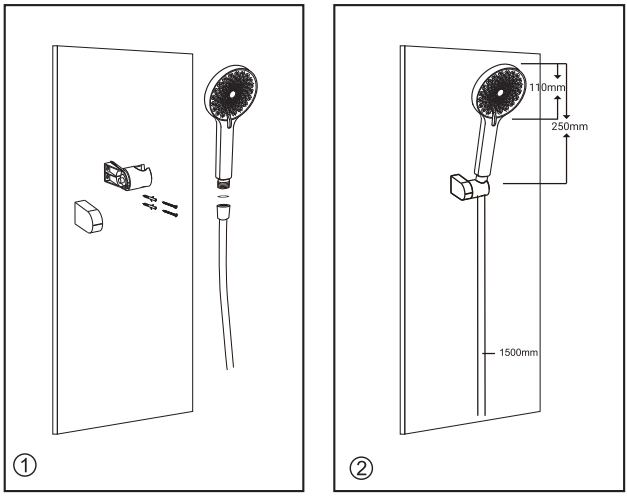


INTERNAL PARTS IDENTIFICATION
PENGENALAN BAHAGIAN DALAM

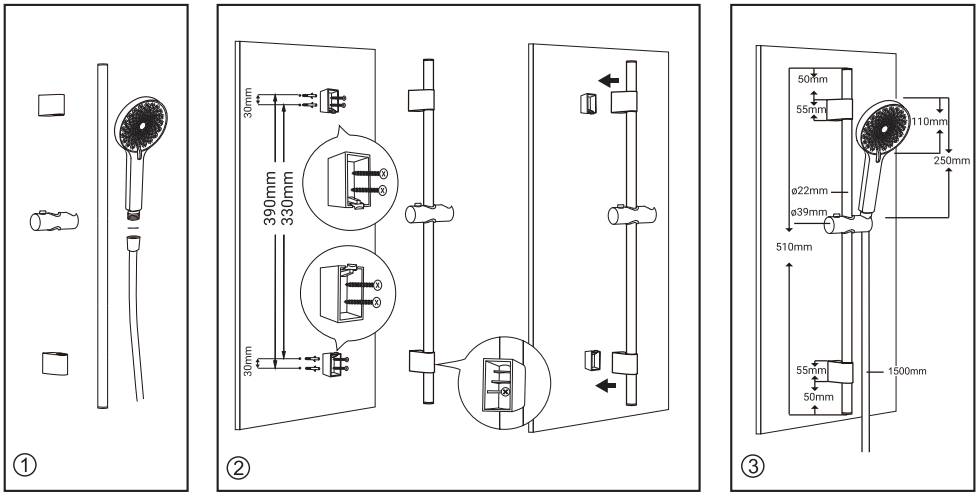


SHOWER SET ACCESSORIES IDENTIFICATION
PENGENALAN AKSESORI PANCURAN

1. ACCESSORIES - BRACKET
AKSESORI - BRAKET

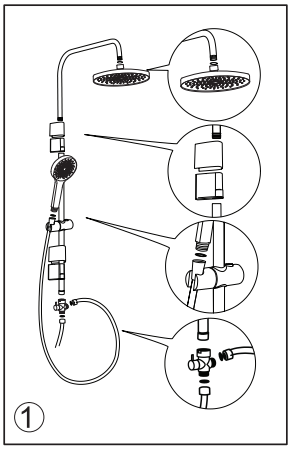


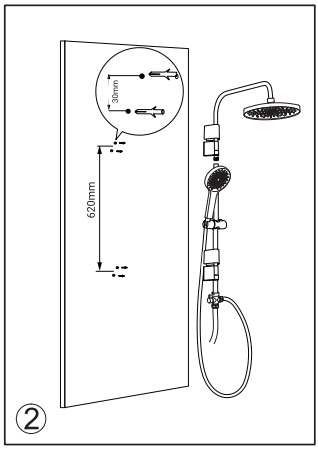
2. ACCESSORIES - SLIDER RAIL
AKSESORI - REL GELONGSOR

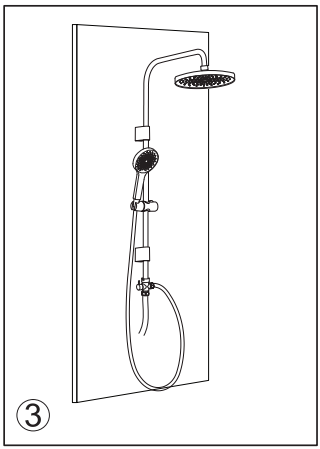


2. RAIN SHOWER SET - TRI-FLOW DIVERTER (Optional Features)
SET PANCURAN MANDIAN HUJAN *(Ciri-ciri pilihan)*

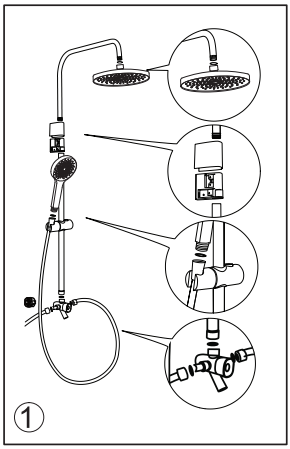
2-in-1 Diverter

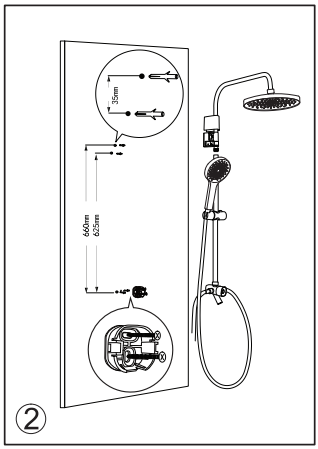


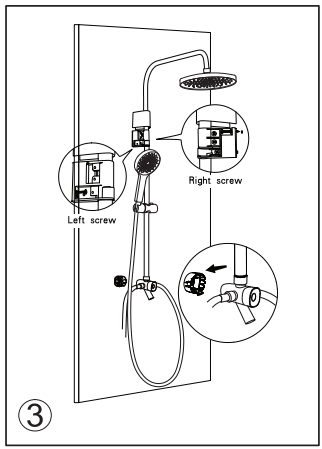




3-in-1 Diverter







2. GENERAL INFORMATION
MAKLUMAT UMUM

INSTALLATION
PEMASANGAN

CAUTION:
AWAS:
THIS APPLIANCE MUST BE EARTHED
PERKAKAS INI MESTI DIBUMIKAN

1. All the plumbing work should be completed before proceeding to electrical wiring connection. (Table 1)
   Semua pemasangan paip perlu diselesaikan sebelum memulakan kerja-kerja penyambungan wayar elektrik. (Jadual 1)

2. Installation must be carried out by qualified electrician with close reference to this manual and in compliance with the local regulations.
   Pemasangan mestilah dilakukan oleh juruteknik yang berkelayakan dengan merujuk kepada panduan ini dan mengikut akta-akta tempatan.

3. The unit works at minimum water flow rate of 2 litre/min, which then would trigger the built-in pump (only for pump model), boostering a stronger shower spray.
   Unit ini berfungsi pada kadar aliran air minima 2 liter/min, yang mengaktifkan pam dan kemudiannya meningkat pancuran semburan.

4. The built-in electronic Residual Current Device (RCD) would cut-off the power supply to heater in the event of current leakage of as low as 15mA.
   "Residual Current Device (RCD)" akan memutuskan bekalan kuasa sekiranya berlaku kebocoran arus serendah 15mA.

5. The Thermal Cut-Off would automatically shut off the power supply shall there is any abnormal rise of showering temperature.
   Pemotongan haba akan berfungsi secara automatik dengan memutuskan bekalan kuasa jika terdapat kenaikan suhu yang tidak normal.

6. The unit only operates when there is sufficient water flow to trigger the flow switch.
   Unit hanya akan beroperasi apabila terdapat aliran air yang cukup untuk mengaktifkan suis aliran.

7. Electrical loading Table 1:
Pendawaian elektrik Jadual 1:

Voltage (Vac)	Power (kW)	Amperes (A)	Recommended Conductor Size (csa)			Fuse/ MCB(A)	ON/OFF Switch (A)
			mm^2	Conduit Cable	Flexible Cable		
220 - 50/60Hz	3.5	16.0	4.0	7/0.67mm	50/0.25	20	20
	4.5	20.5	4.0	7/0.67mm	56/0.30	25	25
	5.5	25.0	4.0	7/0.85mm	56/0.30	32	32
	6.0	27.3	4.0	7/0.85mm	56/0.30	32	32
	6.5	29.6	4.0	7/0.85mm	84/0.30	32	32
	7.5	34.1	6.0	7/1.04mm	84/0.30	40	40
	8.0	36.4	6.0	7/1.04mm	84/0.30	40	40
230 - 50/60Hz	3.5	15.2	4.0	7/0.67mm	50/0.25	20	20
	5.5	24.0	4.0	7/0.85mm	56/0.30	32	32
	6.6	28.7	4.0	7/0.85mm	56/0.30	32	32
	8.8	38.3	6.0	7/1.04mm	84/0.30	40	40
240 - 50/60Hz	3.6	15.0	4.0	7/0.85mm	56/0.30	32	32
	3.8	15.8	4.0	7/0.85mm	56/0.30	32	32
	4.3	17.9	4.0	7/0.85mm	56/0.30	32	32
	7.7	32.1	6.0	7/1.04mm	84/0.30	40	40
	9.0	37.5	6.0	7/1.04mm	84/0.30	40	40

8. Instantaneous water heater shall be equipped with a 2-pole control switch and own residual current device.
Pemanas air segera hendaklah dilengkapi dengan kawalan suis 2-kutub dan memiliki peranti arus berbaki.

9. Water heaters exceeding 3kW shall be permanently connected to a 20A/30A rated circuit breaker/fuse with an isolator switch and residual current device.
Pemanas air yang melebihi 3kW hendaklah disambung secara tetap pada 20A/30A nilai arus pemutus litar/fius dengan suis pengasing dan peranti arus berbaki.

3. INSTALLATION PROCEDURES
TATACARA PEMASANGAN

1. Only fixed and permanent connection is allowed, plug and socket shall not be used. In the case where direct connection cannot be made to the water heater, only correctly sized approved connector and connection shall be used.
Hanya sambungan tetap dan kekal dibenarkan, palam dan soket tidak boleh digunakan. Dalam kes di mana sambungan terus tidak boleh dibuat ke pemanas air, hanya penyambung yang diluluskan bersaiz betul dan sambungan hendaklah digunakan.

2. For connection within the shower cubicle and below the ceiling, the connection box shall be IPX5.
Untuk sambungan dalam bilik mandi dan di bawah siling, kotak sambungan hendaklah IPX5.

3. An approved, correctly sized (MS IEC 60335-1:2013) copper flexible cable with maximum 1.5m length, shall be used to connect the water heater to the connection box.
Kabel fleksibel tembaga yang diluluskan, bersaiz betul (MS IEC 60335-1:2013) dengan panjang maksimum 1.5m, hendaklah digunakan untuk menyambungkan pemanas air ke kotak sambungan.

4. Minimum cable size must not less than 4.0mm².
Saiz kabel minimum mestilah tidak kurang daripada 4.0mm².

5. INLET and OUTLET connection of the heater unit should not be reversed, with stop valve installed on INLET. (Diagram 1)
Sambungan unit pemanas "INLET" dan "OUTLET" tidak boleh songsang dan injap hentian mestilah dipasang pada "INLET".

6. It is recommended that the unit should be mounted 1.5m above the floor to bottom of the heater. (Diagram 1)
Pemasangan unit digalakkan mempunyai jarak 1.5m antara lantai dengan bahagian bawah pemanas. (Rajah 1)

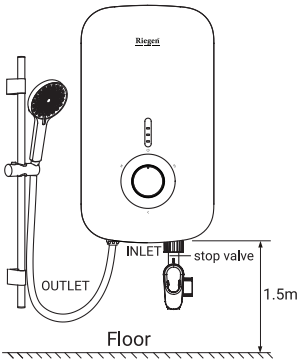


Diagram 1
Rajah 1

7. Mounting position
Penetapan tapak pemanas
   - Remove screw at the bottom of the heater
   Keluarkan skru dari bawah pemanas
   - Lift the plastic cover upward (Refer Diagram 2)
   Buka penutup plastik pemanas dari bahagian bawah. (Rujuk Rajah 2)
   - Mark mounting position on the wall for all 3 screws
   Tandakan posisi semua 3 skru pada dinding
   - Drill the holes with 5.0mm diameter drill bit (Refer Diagram 3)
   Gerudi lubang dengan meggunakan bit gerudi berdiameter 5.0mm (Rujuk Rajah 3)
   - Install the unit to the wall with plug
   Pasang unit pada dinding bersama plug

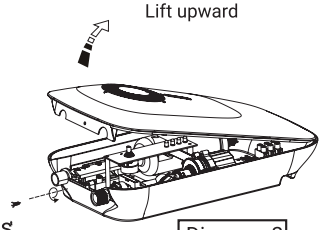


Diagram 2
Rajah 2

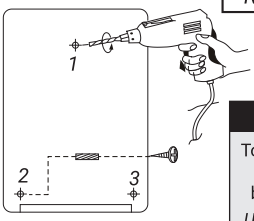


Diagram 3
Rajah 3

WARNING !

To prevent vibration, all 3 screw must be tightened fully.

Untuk mengelakkan getaran, semua 3 skru hendaklah diketatkan sepenuhnya.

8. Installation of Heater INLET and OUTLET connection.(Diagram 4)
Pemasangan "INLET" dan "OUTLET" pemanas. (Rajah 4)

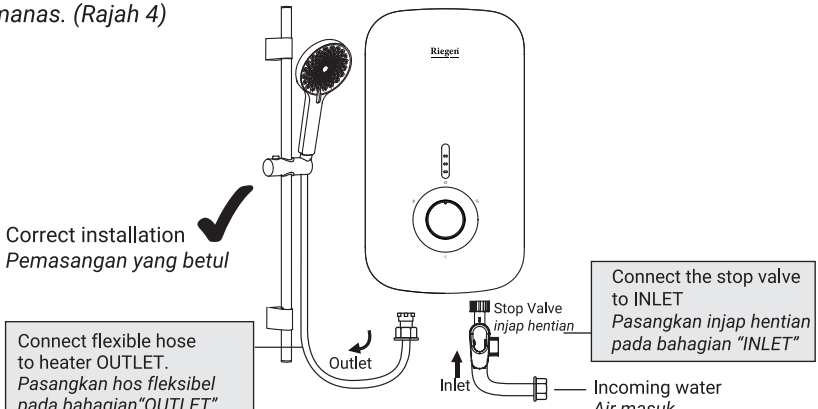
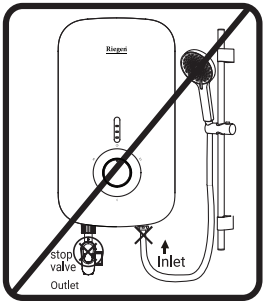
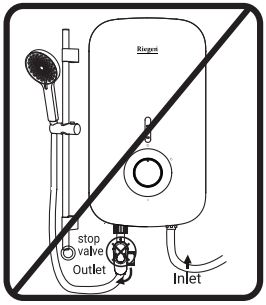


Diagram 4
Rajah 4



✗ inlet - outlet reverse
(wrong installation)
inlet - outlet songsang
(pemasangan yang salah)



✗ stop valve reverse
(wrong installation)
inlet - outlet songsang
(pemasangan yang salah)

WARNING !

Wrong installation will caused damage to heating element.

Pemasangan yang salah boleh mengakibatkan kerosakan pada elemen pemanas.

9. Electrical Connection
Penyambungan elektrik

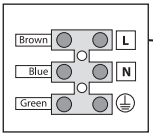
IMPORTANT NOTE !
NOTA PENTING !

SWITCH OFF THE MAIN SUPPLY BEFORE ELECTRICAL WORK
PADAMKAN SUIS UTAMA SEBELUM MELAKUKAN KERJA-KERJA PENDAWAIAN ELEKTRIK

a) Insert electrical cable through the rubber grommet as (Diagram 5).
Masukkan kabel elektrik melalui grommet getah seperti yang ditunjukkan pada (Rajah 5).

b) Connect the cable to the terminal block and fully tighten as below :
Sambungkan kabel ke blok terminal dan ketatkan sepenuhnya seperti berikut:

Ensure all wiring connection is completely TIGHTEN!
Pastikan semua penyambungan wayar telah diketatkan!



Electrical cable (Recommended conductor size 4.0mm^2)
Kable elektrik saiz konduktor yang disyorkan 4.0mm^2

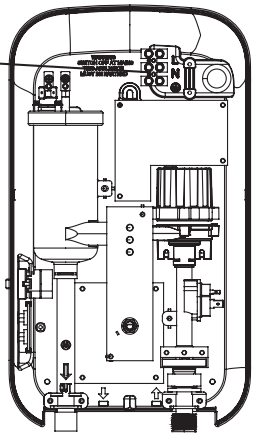


Diagram 5
Rajah 5

c) Restore the cover. (Diagram 6)
Pasangkan penutup pemanas. (Rajah 6)

To install cover:
Pemasangan penutup:

1) Place bottom part into position & fit in nicely.
Posisikan penutup & ketatkan bahagian bawah dahulu.

2) Press firmly the top part until "click" to secure the cover.
Tekan bahagian atas penutup sehingga bunyi "klik".

3) Install screw at bottom to lock in position.
Selepas penutup dipasang dengan ketat, pasangkan skru di bahagian bawah.

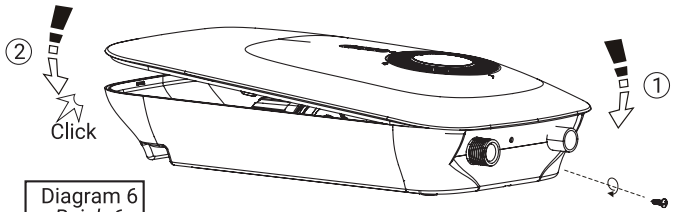
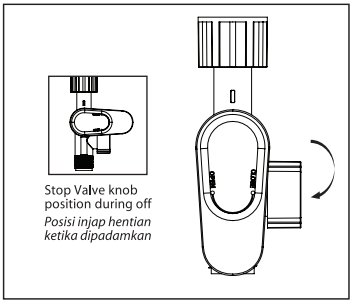
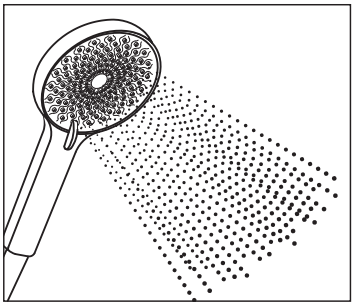


Diagram 6
Rajah 6

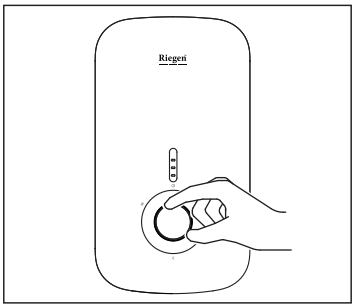
4. OPERATION PROCEDURES / TEST RUN OF HEATER
TATACARA OPERASI / PENGUJIAN PEMANAS



1. Turn on stop valve (clockwise).
Hidupkan injap hentian (arah jam).

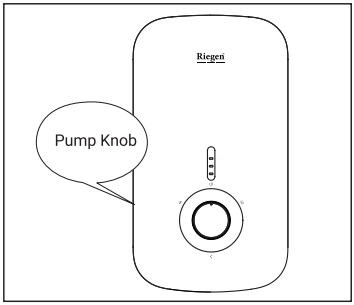


2. Make sure water flow starts after stop valve had been turned on.
Pastikan pancuran air bermula selepas injap hentian dihidupkan.

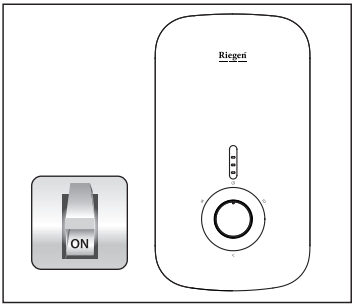


3. Turn on the Temperature Control Knob. The 'HEATER' LED will light up and the water temperature will increase accordingly as the knob turns clockwise from 'LO' to 'HI'.
Hidupkan tombol kawalan suhu. LED 'HEATER' akan menyala dan suhu air akan dinaikkan sesuai saat tombol dipusingkan dari arah jam dari 'LO' ke 'HI'.

For normal cold shower, just turn the Temperature Control Knob to ' ⏻ ' position.
Untuk pancuran air sejuk biasa, putar tombol Pengawal Suhu ke posisi ' ⏻ '.

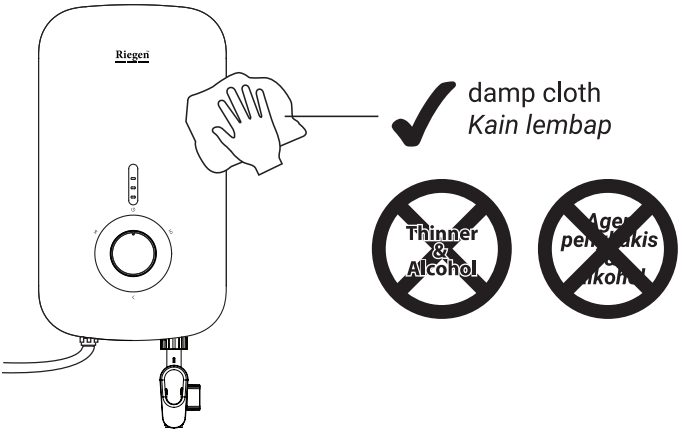


4 For DC pump model only, turn the Pump Control knob at the side to activate the Pump booster function. The " Pump" LED will light up and water pressure will increase accordingly.
Untuk model pam DC sahaja, putar tombol Kawalan Pam di sebelah untuk mengaktifkan fungsi penggalak Pam. LED "Pam" akan menyala dan tekanan air akan meningkat dengan sewajarnya.



5 Switch off the power supply when not in use.
Matikan bekalan kuasa apabila tidak digunakan.

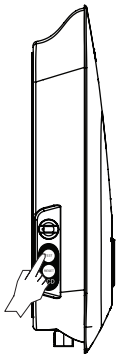
5. GENERAL MAINTENANCE
PENYELENGGARAN AM



TEST THE "RCD" REGULARLY
UJI "RCD" DENGAN KERAP

It is highly recommended to test the built-in RCD in the water heater and at the main switch board at least once a month.
Anda amat digalakkan untuk menguji RCD terbina dalam dalam pemanas air dan pada papan suis utama sekurang-kurangnya sekali sebulan.

a) Turn on the electricity and water supply, the yellow RCD LED will light up. If the temperature control knob is at 'ON' position, the red HEATER LED will also light up. Press the RCD TEST button, RCD and HEATER LED should go off. Press the RESET button to resume back the electricity supply.
Hidupkan bekalan elektrik dan air, LED RCD kuning akan menyala. Jika tombol kawalan suhu berada pada kedudukan 'ON', LED HEATER merah juga akan menyala. Tekan butang TEST RCD, LED RCD dan HEATER akan terpadam. Tekan butang RESET untuk menyambung semula bekalan elektrik.



If the RCD or heater lamp does not goes off when you press the RCD Test button, switch off the mains supply and contact your sales agent for repair. Special skill is required for repair. Never try to repair the unit by yourself.
Jika LED RCD atau HEATER tidak terpadam apabila anda menekan butang TEST RCD, matikan bekalan utama dan hubungi ejen jualan anda untuk pembaikan. Kemahiran khas diperlukan untuk pembaikan. Jangan sekali-kali cuba membaiki unit sendiri.

Main switch board

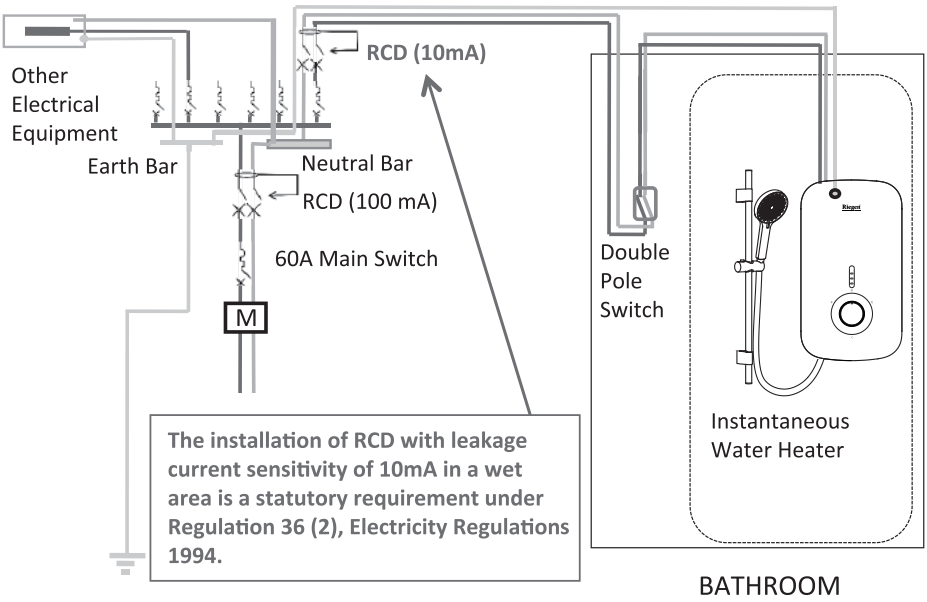


Figure 7: The installation of RCD for instantaneous water heater with leakage current sensitivity of 10mA in a wet area.

CLEAN FILTER REGULARLY (DIAGRAM 8 & 9)
BERSIHKAN PENAPIS SECARA TERAP (RAJAH 8 & 9)

a) Remove the filter mesh from the stop valve (for filter type only) by turning the knob filter anticlockwise and pulling out the knob (Diagram 8). Flush it with water to remove any trapped sediments. Install the knob filter back to its original position.

a) Keluarkan penapis daripada injap henti (untuk jenis penapis sahaja) dengan memusingkan tombol penapis lawan arah jam dan menarik keluar tombol (Rajah 8). Cuci dengan air untuk mengeluarkan sebarang mendapan yang terperangkap. Pasangkan penapis tombol kembali ke pada kedudukan asalnya.

b) Clear the shower head's holes by using a soft brush from time to time (Diagram 9). Recommended to clean it once a week. Be careful not to damage the holes of the shower head during cleaning.

b) Bersihkan lubang kepala pancuran dengan berus lembut dari masa ke masa (Rajah 9). Disyorkan untuk membersihkannya sekali seminggu. Berhati-hati agar tidak merosakkan lubang kepala pancuran mandian semasa pembersihan.

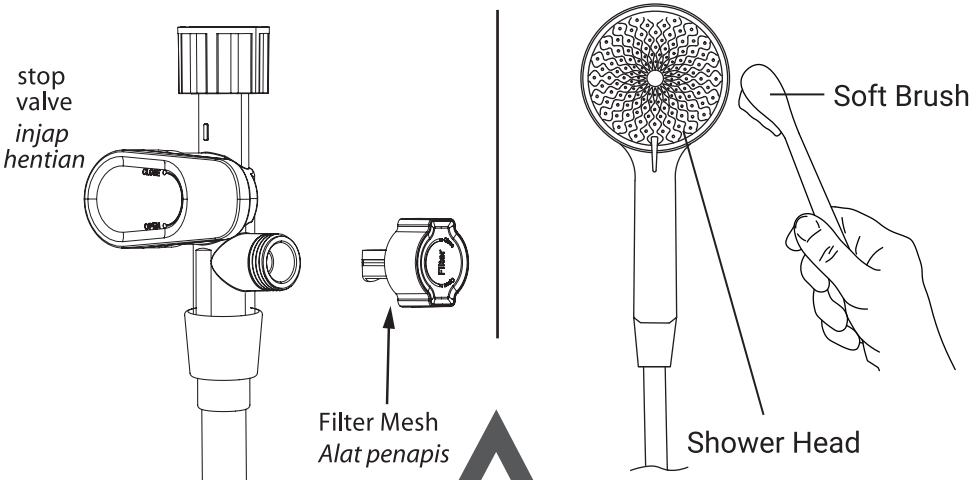


Diagram 8
Rajah 8

Diagram 9
Rajah 9

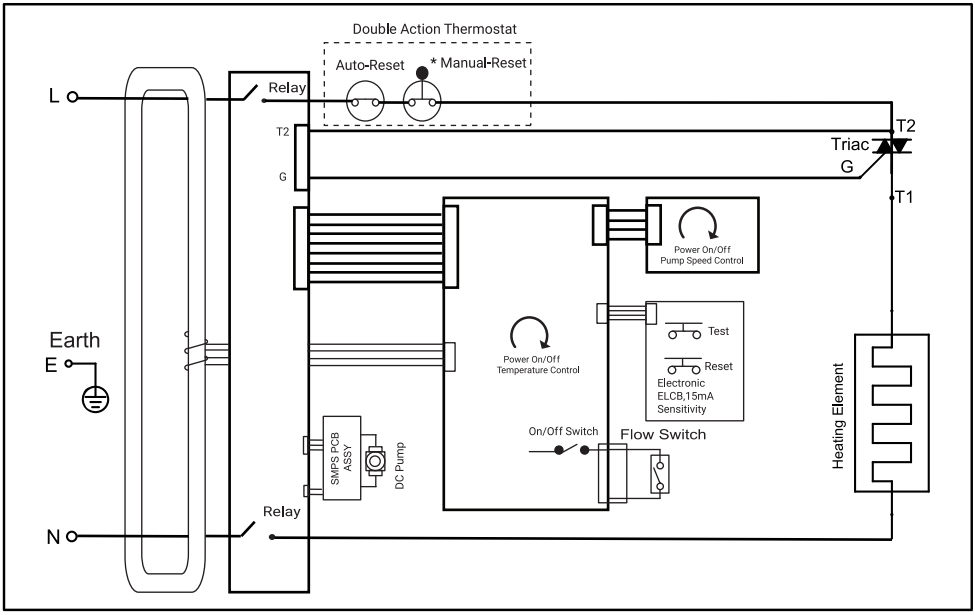
CLEAN FILTER MESH REGULARLY
ALAT PENAPIS MESTI KERAP DIBERSIHKAN

6. TECHNICAL SPECIFICATIONS
SPESIFIKASI TEKNIKAL

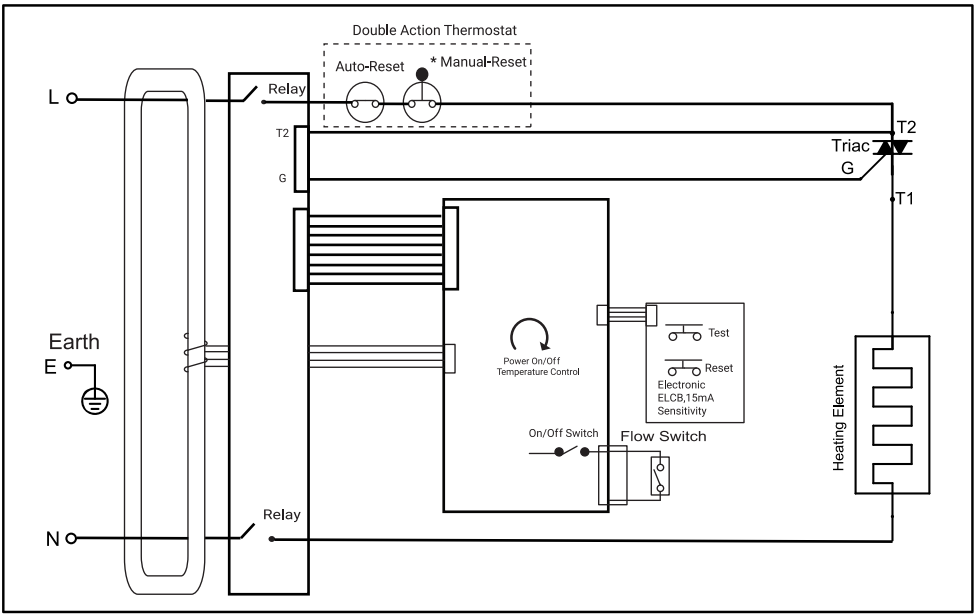
Electrical loading / *Muatan elektrik*	3.8kW 240V 50/60Hz
Other loading / *Muatan lain*	Please refer Electrial loading table *Rujuk jadual pendawaian elektrik*
RCD sensitivity / *Sensitiviti RCD*	15 mA
Operating condition / *Keadaan berfungsi*	Open system (Open outlet) / *Sistem terbuka*
Water connection / *Sambungan air*	Ø15mm (1/2" BSP)
Degree of protection / T*ahap perlindungan*	IP25
Min water flow rate / *Kadar aliran air min*	2 litre/ min
Min water pressure / *Tekanan air min*	10kPa (0.1 bar / 1.45psi)
Max water pressure / *Tekanan air max*	6 bar (0.6MPa / 87.01psi)
Heater dimension (mm) / *Ukuran pemanas*	370 (H) x 210 (W) x 87 (D)
Heater nett weight / *Berat bersih pemanas*	Non pump / *Tanpa pam : 1.3kg* Inverter Silent DC Pump / *Pam Senyap Inverter DC : 1.7kg*

7. SCHEMATIC WIRING DIAGRAM
RAJAH PENDAWAIAN SKEMATIK

INVERTER SILENT DC PUMP / *PAM SENYAP INVERTER DC*



NON-PUMP / *TANPA PAM*



Our Warranty

1 Year Warranty — on Internal Parts *pada Bahagian Dalaman*

7 Year Warranty — on Heating Element *pada Unsur Pemanas*

5 Year Warranty — on Inverter DC Silent Pump *pada pam Senyap Inverter DC*

10 Year Warranty — on Anti-tank Leakage *pada Pencegahan Tangki Bocor*

Customer **Care**

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PJU6A, 47400 Petaling Jaya,
Selangor Darul Ehsan.

Service Hotline: 03-77319139
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website: www.riegen.com.my

OPERATION HOURS:

09:00am – 05:00pm
(Monday – Friday, except public holiday)