



# CROWN INDUSTRIES

**PROUDLY MADE IN AUSTRALIA**



## Boiling Water Units



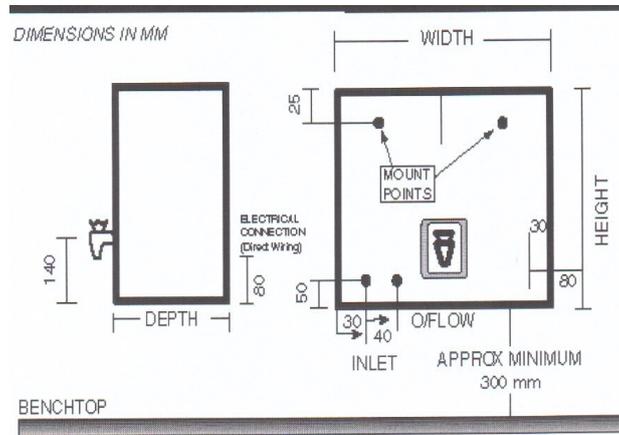
### Features:

- Automatic filling.
- Electronically controlled.
- Economical to use.
- Serviced without removing the tap.
- Boil dry protected element.
- Steam free operation.
- Available in white or stainless steel cover.

### OPERATING & INSTALLATION INSTRUCTIONS

#### CELSIUS 100 BOILING WATER UNITS

**MODELS: CRN2.5, CRN5, CRN7.5, CRN10, CRN15, CRN20, CRN25 CI & EI**



#### CELSIUS 100 BOILING WATER SYSTEM - SPECIFICATIONS

MODEL NO	CAPACITY (LTS)	NO. CUPS	C U P / H R RECOVERY	RATING KW & AMP	HEIGHT	WIDTH	DEPTH
CRN 2.5	2.5	14	110	1.8, 10amp	365	320	220
CRN 5	5	25	110	1.8, 10amp	465	320	220
CRN 7.5	7.5	38	110	2.4, 10amp	480	350	250
CRN 10	10	50	110	2.4, 10amp	550	350	250
CRN 15	15	75	110	2.4, 10amp	640	400	300
CRN 20	20	100	110	2.4, 10amp	640	400	300
CRN 25	25	125	110	2.4, 10amp	735	400	300

#### Optional Extras on:

To determine the right model for your requirements calculate the number of cups of boiling water that would be required at any one time, then refer to the chart (above) for the corresponding model.

If you require a larger element specify this in the product order form. All models are supplied as White powder coated finish unless Stainless Steel is specified.

**WARRANTY** 12 Months Parts and Labor against system failure.



## PRODUCT GUARANTEE

These boiling water units are guaranteed for a period of one year from the date of purchase against defects in materials and workmanship.

The guarantee will not apply to a product which has been subjected to misuse, bad water, abuse, damage in transit, or improper voltage which would affect the reliability.

### Filtration

We strongly recommend the fitting of a triple action inline filter to all boiling water units which are being installed in hard water areas, especially W.A., S.A., N.T. and parts of Q.L.D. and N.S.W. as some of these areas have a high concentrate of minerals and iron oxide in the water which are very harmful to the holding tanks etc.

Failure to fit adequate filters will void the warranty of the product.

### Service

If this boiling water unit requires service of any kind just contact Crown Industries, direct on Melbourne (03) 9739 6966 for your nearest supplier of service and spare parts.

(If the supply cord is damaged, it must be repaired by the manufacturer or its agent to avoid a hazard)



## **BOILING WATER UNIT INSTALLER INSTRUCTIONS CELSIUS 100 CRN CI & EI Series**

### **POSITIONING THE UNIT**

The unit should be mounted on a strong wall above a sink or draining board at a tap height most comfortable for people to use  
Or approximately 40 cm above standard sink height, fit tap supplied with teflon tape and tighten in upright position.

### **CONCEALED PLUMBING INSTALLATION**

There is provision for water and electrical concealed installation.

### **EXTERNAL PLUMBING**

We recommend the plumber to use a tundish for the overflow pipe and isolating valve for the water inlet.

### **FILTRATION**

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Failure to fit adequate filters will void the warranty of the product.

### **ELECTRICAL CONNECTION**

**IMPORTANT: PLEASE CHECK THAT THE POWER POINT IS WIRED CORRECTLY WITH THE ACTIVE ON THE TOP LEFT HAND TERMINAL, THE NEUTRAL ON THE TOP RIGHT HAND & EARTH ON THE BOTTOM TERMINAL. THE UNIT WILL NOT OPERATE CORRECTLY IF IT IS INCORRECTLY WIRED.**

This unit is supplied with a flex and plug, for fixed wiring please use a registered electrician.

### **INITIAL OPERATING INSTRUCTIONS**

Once the unit has been installed correctly, the following procedure, should take place.

1. Turn water on.
2. Turn power on.
3. Wait until water reaches the minimum water level probe, usually a dribble will come out of the tap in the open position.
4. Close the tap and while the unit is filling observe to see that there are no leaks of water; if so investigate the reason why and repair.
5. Once the maximum water level is reached the unit will stop filling, the element will heat the water until it reaches 96°C, and then the electronic controller will monitor the water at 96°C indefinitely.
6. Test the operation of the unit by letting some of the water out of the tap, which almost immediately turns the water valve on letting water into the tank and raising the water level to the top probe.
7. Once the unit is working correctly, fit the cover with the four fixing screws and leave the instructions with the owner.

### **ALTERNATIVE SHORTCUT FOR THE INSTALLER!**

To reduce the set up time of the installation a short cut be used to trick the microprocessor into thinking that the unit is full of water even when it is virtually empty.

Firstly, turn on the water and power, wait until the water dribbles out of the open tap, then close the tap and with a screwdriver short the top probe out to the edge of the tank, the top probe being the probe with the black wire fixed to it, immediately the water valve will stop filling and the element will come on and heat the water, then the heat and fill cycle will start and finish when the top probe is reached.

**TROUBLE SHOOTING ACTION ONLY TO BE PERFORMED BY A QUALIFIED PERSON**

WE RECOMMEND THAT IF THE ABOVE SYMPTOMS AND ACTIONS CAN NOT BE REPAIRED TO RING CROWN INDUSTRIES FOR TECHNICAL ASSISTANCE ON MELBOURNE AUSTRALIA 61-3-97396966 OR CONTACT YOUR NEAREST CROWN DISTRIBUTOR.

<b>SYMPTON</b>	<b>CAUSES</b>	<b>ACTION</b>
UNIT NOT HEATING BUT POWER LIGHT ON.	VENT THERMOSTAT OPEN, DUE TO OVER FLOWING OR OVER BOILING.	REPLACE VENT THERMOSTAT. IF UNIT OVER BOILING, REPLACE THERMISTOR. IF PROBLEM PERSISTS REPLACE CIRCUIT BOARD.
UNIT NOT GIVING WATER FROM THE TAP.	TAP BROKEN, WATER NOT TURNED ON, ELECTRIC INLET VALVE COIL BURNED OUT, CIRCUIT BOARD FAULTY.	REPLACE TAP INSERT.  TURN WATER ON AND TEST UNIT. REPLACE WATER INLET VALVE AND TEST UNIT. REPLACE CIRCUIT BOARD AND TEST UNIT.
UNIT NOT WORKING PROPERLEY.	POWER POINT NOT WIRED UP CORRECTLY	CHECK TERMINAL CONNECTIONS.  1. ACTIVE TOP LEFT TERMINAL 2. NEUTRAL TOP RIGHT TERMINAL 3. EARTH CENTRE TERMINAL





## **TO REPLACE THE CONCEALED ELEMENTS - 2.4kw HU036 & 1.5kw HU037**

(Turn the power off and drain water first)

Disconnect the active and neutral wires at the terminal block which are connected to the element.

Disconnect the solenoid valve silicone connecting hose at the solenoid.

Disconnect the vent silicone hose at the vent pipe on the tank.

Remove the silicone plug holding the thermistor in place, then remove the thermistor and place away from the tank.

Disconnect the high and low water level probe wires on the top of the tank and push out of the way.

Remove the three screws on the bottom side of the chassis which hold and locate the tank, then lift the tank off the chassis onto a table or bench.

Remove the insulation from the top of the tank then remove the four nuts and washers which hold the tank top in place, then remove the tank top and put it to one side.

Turn the tank upside down then mark with a texta the position of the clamp plate and element so everything lines up on the assembly procedure.

Undo the six clamp plate nuts evenly until they are all nearly undone then place one hand inside the tank and hold the element while removing all the nuts and washers and clamp plate then withdraw the element out through the top.

Installation of the new element is the reverse of the dismantling procedure only make sure the element seal and the position of the element is situated correctly.

## **TO REPLACE THE CIRCUIT BOARD**

Turn the power off then proceed to remove the three small fixing screws from the chassis mount bracket on the back panel only.

Carefully remove the white multi plug at the top of the circuit board then remove the small plug marked red for temperature sensor and the small plug marked black for water level cables.

Carefully fit the plugs to the appropriate sockets on the new replacement circuit board and proceed to screw the circuit board assembly onto the back panel.

Turn the power on at the power point then proceed to check the Boiling Water Unit for correct operation ie; heating, filling and stand by.



### **TO REPLACE THE ELEMENT (SIDE ENTRY MODEL- CRNEI)**

(Turn the power and water off first and unplug at the power point)

Open tap and drain water tank. Open drain cock (one turn only). Remove four screws holding front cover and lift front cover off carefully.

Disconnect the active neutral and earth cables from the element and check continuity with multi meter.

If boil dry thermostat is faulty replace it, and test unit.

If element is faulty slowly undo the six screws in opposite sequence and remove all the screws. Then remove the element and gasket and inspect.

Make sure element flange is clean prior to inserting the new element, insert the new element with the boil dry thermostat at the top and finger tighten the six screws and washers, then tighten evenly all the six screws until the gasket is compressed and the screws are very tight.

Connect the cables back onto the element.

### **Testing Procedure.**

Tighten drain cock, close tap, turn water on and turn power on, unit should start up and fill with water until top probe is reached then unit will start heating, depending on size and litres once the water has reached serving temperature the ready light will come on and stay on for up to 10 minutes then when it settles down the unit will operate by power on for a few seconds then off for 10 minutes etc.

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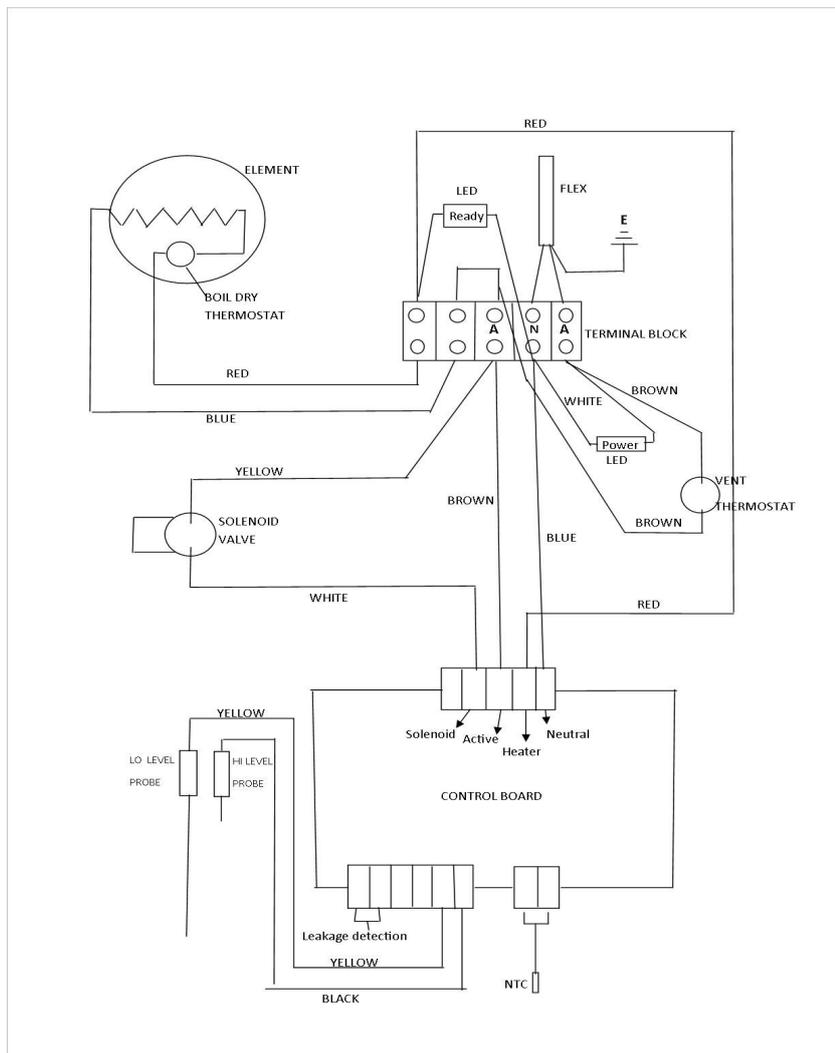
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Turn the power on at the power point then proceed to check the Boiling Water Unit for correct operation ie; heating, filling and stand by.



ELECTRICAL REPAIRS TO BE PERFORMED BY A QUALIFIED PERSON ONLY.

## Wiring diagram for Celsius 100



## CROWN INDUSTRIES

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