



SERVICE MANUAL

UNDERCOUNTER RANGE:

- **Ecoboiler UC4L 2.4kW(1000740#)**
- **Ecoboiler UC10L 2.8Kw(1000741#)**
- **Ecoboiler UC10L 5.6kW(1000742#)**
- **Ecosmart UC4L 2.4kW(1000750#)**
- **Ecosmart UC10L 2.8kW(1000751#)**
- **Ecosmart UC10L 5.6kW(1000752#)**



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1. INTRODUCTION:

The information provided in this manual is intended to assist in the installation and maintenance of the Marco Eco boiler Water boiler. Please read the instructions carefully to prevent accidents and ensure an efficient installation.

This manual is not a substitute for any safety instructions or technical data affixed to the machine or its packaging. All information in this manual is current at the time of publication and is subject to change without notice.

Only technicians or service providers authorised by Marco should carry out installation and maintenance of these machines.

Marco accepts no responsibility for any damage or injury caused by incorrect or unreasonable installation and operation.

2. SAFETY INSTRUCTIONS:

- Read all instructions.
- To protect against electric shock do not immerse mains cord in water or other liquid.
- To prevent chafing of the cable, do not let the mains cord hang over the edge of a table or counter; or touch hot surfaces.
- Do not operate any appliance with a damaged cord, plugs, or after the appliance malfunctions or has been damaged in any manner.
- Switch off at the mains (unplug or disconnect from outlet) and turn off the water supply when not in use and before cleaning. Allow to cool before removing components.
- The use of spares and accessories not recommended by Marco may cause damage and/or injuries.
- Do not use outdoors. Do not place on or near a hot gas or electric burner.
- Do not use the appliance for anything other than its intended use.
- Save these instructions.

3. BASIC INSTRUCTIONS:

3.1. INSTALLATION DETAILS:

Electrical installation:

Refer to rating plate for electrical information.

Plumbing installation procedure:

Note: Marco cannot be held responsible for any flood damages.

- Mains water pressure required (limits): 5-50psi (35-345kPa)
- For EU, fit a stop Valve on a cold water line and attach a 3/4" BSP male fitting, (e.g. 3/4" x 1/2" 311 or washing machine type stop valve).
 - For US equipment install 3/8" NPT
- Connect straight tailpiece of the inlet hose to the stop valve fitting. Make sure that the pre-attached sealing washer is fitted.
- Turn on the water to flush any impurities, dust etc from the inlet hose and water pipe. Allow several gallons through.
- Connect right-angled tailpiece of the hose to the inlet valve of the boiler (again 3/4" BSP). Make sure the sealing washer is fitted here also.
- Turn on water and check for leaks.

3.2. OPERATION:

- Check that all installation procedures have been carried out.
- Ensure water valve is on.
- Plug boiler into a suitable socket and press power button on the front of the machine marked 'Power'.

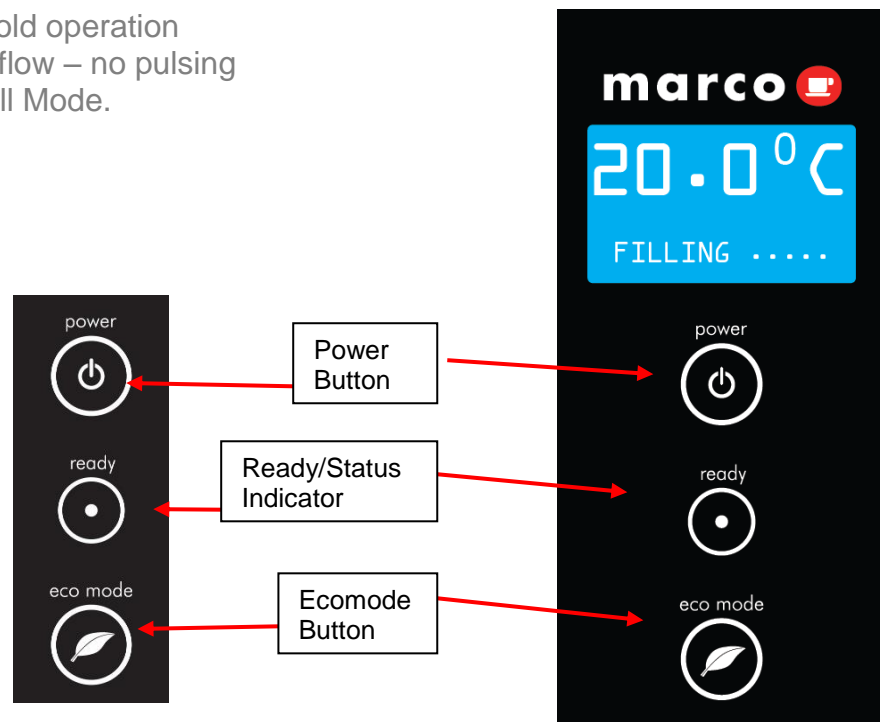
Ecoboiler UC4L/ Ecoboiler UC10L

- The "power on" light will glow green and the machine will fill to a safe level, above the elements, before heating.
- The "Ready/Status" light will cycle two red flashes while the machine is filling to the safe level.
- After this amount of water has heated to about 96°C the boiler will draw more water in until the temperature drops by 1 or 2 degrees. The boiler will then heat again. This heat fill cycle continues until the boiler is full.
- On a 10L machine, whilst the machine is above the safe level and filling, the "Ready/Status" light will remain blank.
- The "Ready/Status" light will glow green when the machine is both full and up to normal operating temperature.
- The boiler is now ready for use.

Ecosmart UC4L /Ecosmart UC10L

- The "power on" light will glow green and the machine will fill to a safe level, above the elements, before heating. The display will show the current water temperature and the status "Filling..."
- The "Ready/Status" light will cycle two red flashes while the machine is filling to the safe level.
- After this amount of water has heated to about 96°C the boiler will draw more water in until the temperature drops by 1 or 2 degrees. The boiler will then heat again. This heat fill cycle continues until the boiler is full.
- While filling, the "Ready/Status" light will remain blank.

- The “Ready/Status” light will glow green when the machine is both full and up to normal operating temperature. For 10L machines allow approx 30 minutes.
- The boiler is now ready for use – the display will show the Water Temperature and the status “READY”.
- The Boiler may now be used to dispense Hot Water to the preset factory settings.
 - 94°C
 - Push and Hold operation
 - Continuous flow – no pulsing
 - Auto heat Fill Mode.



Ecoboiler UC4L/ Ecoboiler UC10L

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NOTE:

Because the boiler is electronically controlled no priming is necessary. The element cannot switch on until a safe level of water is reached.

3.3. TEMPERATURE CALIBRATION

Ecoboiler UC4L/ Ecoboiler UC10L

The Ecoboiler control PCB (1600345 or 1600375 *US Build*) has the ability to have the desired set-point temperature at whatever setting is required. During manufacture of the PCB it is set to the default temperature of around 94°C.

If the temperature setting needs to be modified on-site please follow the steps below:

1. To Enter Calibration mode:
 - a. Turn the machine off at the mains power supply.
 - b. Then, whilst depressing the tactile switch on the PCB, turn the mains power back on.
 - c. All available LED's on the front panel will now blink continuously.
 - d. The machine is now in Calibration mode.
2. In Calibration Mode the machine will heat continuously until the tactile switch on the PCB is pressed for a second time (NB: The tactile switch should be pressed for at least 1 second)
3. Using a thermometer to measure the temperature at the thermistor pocket, the machine should be allowed to reach the desired set-temperature. (NB: It may be necessary to let the unit cool down if the desired set point is lower than the units current temperature)
4. Following a correct calibration procedure the tank temperature should be maintained within 3°C of the desired set-point temperature.

In the event of an incorrect calibration process the steps below should be followed:

5. If the tactile switch is pressed too early and the temperature is set lower than desired, the tester should simply repeat calibration.
6. If the tactile switch is pressed too late and the set temperature is too high, the tester will need to wait for the temperature in the tank to cool, or add cool water, and then repeat calibration.

Ecosmart UC4L /Ecosmart UC10L

PLEASE REFER TO INSTRUCTION BOOKLET FOR TEMPERATURE CALIBRATION.

3.4. TIME/VOLUME DISPENSE CALIBRATION

Ecoboiler UC4L/ Ecoboiler UC10L

1. Open the service panel.
2. Make sure that the machine is powered, filled and heated (ready lamp green).
3. Press calibration tactile button on the PCB for a second until status lamp starts blinking red-green.
4. Set new dispense time by pressing dispense button to obtain the required output volume of water. Button may be pressed several times – all times / volumes will be added together.
5. To confirm and save new value press calibration button on the PCB for a second until the status lamp stops blinking.
6. Setting dispense time / volume to zero (omit step 4) will make the machine work as “push & hold” (water dispensed as long as the button is pressed).

3.5. TROUBLESHOOTING

The Ready/Status light signals various errors or problems.

A cycle of red flashes indicates an error. The number of flashes in a cycle corresponds to the symptom in the table below:

Status/Diagnostic light guide:

No of flashes	Symptom	Action required
2	Water level below elements. Normal when machine first fills.	Check water pressure , if this is OK then call service agent.
3	Temperature sensor failure (s/c)	Call service agent
4	Water not heating	Call service agent
5	Temperature sensor failure (o/c)	Call service agent
6	Machine not filling	Check water pressure.

Note: Some of the error sequences will be displayed if there is low water pressure. Please check that there is water pressure and that the water stop-valve is open before calling your service agent.

For a more detailed description of error indicators and corrective actions see section 4.7 of this manual.

3.6. MAINTENANCE:

Marco machines have been designed to give many years of trouble free service. Marco Beverage Systems manufacture and test to ISO9002:2000 standard. The only regular maintenance required is occasional de-scaling.

Descaling Procedure:

- Isolate machine from power supply.
- Isolate machine from water supply.
- ALLOW TO COOL COMPLETELY!
- Drain water from machine.
- Remove all lids.
- Remove as much scale as possible by hand, paying particular attention to level probes (White plastic with steel tab). Be very careful not to damage any attachments.
- Use Scale Kleen, Marco part No. 8000270 or similar. Follow instructions carefully.
- Thoroughly clean and flush the machine before re-use.
- Follow installation and first time operation instructions

3.7. CLEANING:

The exterior of these machines may be cleaned with a damp cloth and a light detergent. Do not use abrasive cloths or creams, as this will spoil the finish of the machine. Do not use a water jet or spray. Beware of accidentally operating the draw off tap or push button when cleaning the front of the machine.

3.8. LIMESCALE:

In common with all water boiler manufacturers, service calls resulting from lime scale are not covered by warranty. Fitting a scale reducer is recommended, especially in hard water areas. This can reduce the build-up of scale but may not stop it altogether. The frequency that descaling is required depends on the local water supply; hard water areas need more attention. A scale reducer can reduce the build up of scaling, but may not stop it altogether. Descaling of the machine should ideally be carried out by qualified service personnel.

3.9. CAUTIONS AND SAFETY TIPS:

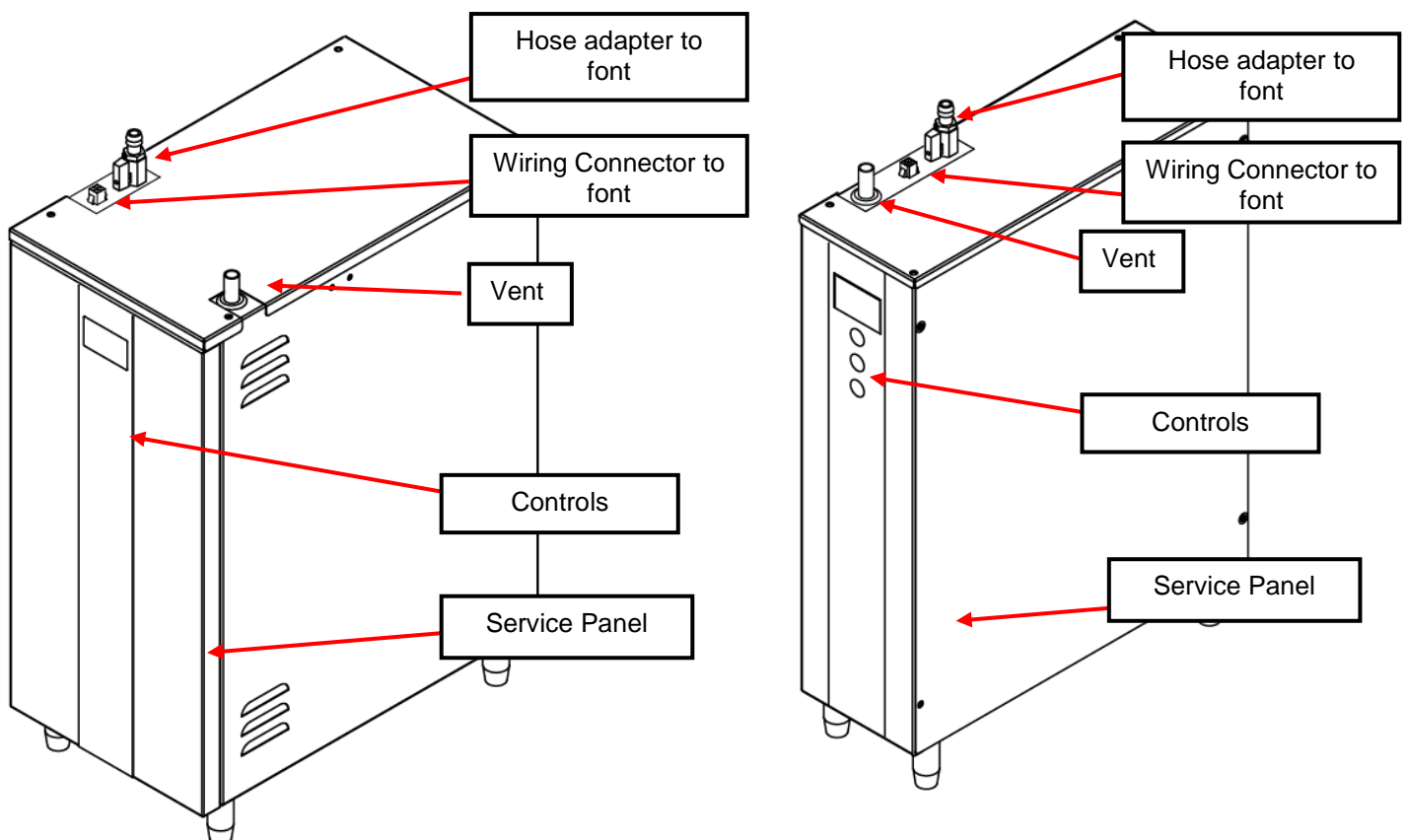
- This appliance must be earthed. If the moulded plug supplied is not used then ensure that the green/yellow cable is connected to a suitable earth.
- Risk of flooding. The hose supplied with this unit is non-toxic food quality tested to 190psi. However, a hose is not a permanent connection. It is, therefore, advisable to switch off boiler and close the stopcock valve when boiler is not in use, e.g. overnight, weekends etc.
- Risk of scalding. Beware of accidentally operating the water draw off tap especially when cleaning the front of the boiler.
- The utmost care has been taken in the manufacture and testing of this unit. Failure to install, maintain and / or operate this boiler according to the manufacturer's instructions may result in conditions that can cause injury or damage to property. If in any doubt about the serviceability of the boiler always contact the manufacturer or your own supplier for advice.

4. Technical Data:

4.1. GENERAL DESCRIPTION:

		Ecoboiler UC4L 2.4kW	Ecoboiler UC10L 2.8kW	Ecoboiler UC10L 5.6kW	Ecosmart UC4L 2.4kW	Ecosmart UC10L 2.8kW	Ecosmart UC10L 5.6kW
Dimensions	Height (mm)	394	394	394	394	394	394
	Width (mm)	135	226	226	135	226	226
	Depth (mm)	585	585	585	585	585	585
Performance	Immediate Draw-Off (litres)	4L	10L	10L	4L	10L	10L
	Max. Hourly Output (L/hr)	24L	28L	56L	24L	28	56L
Plumbing	Fittings Pressure	0.75" BSP Food grade inlet hose supplied 5-50 psi (35-345 kPa)					

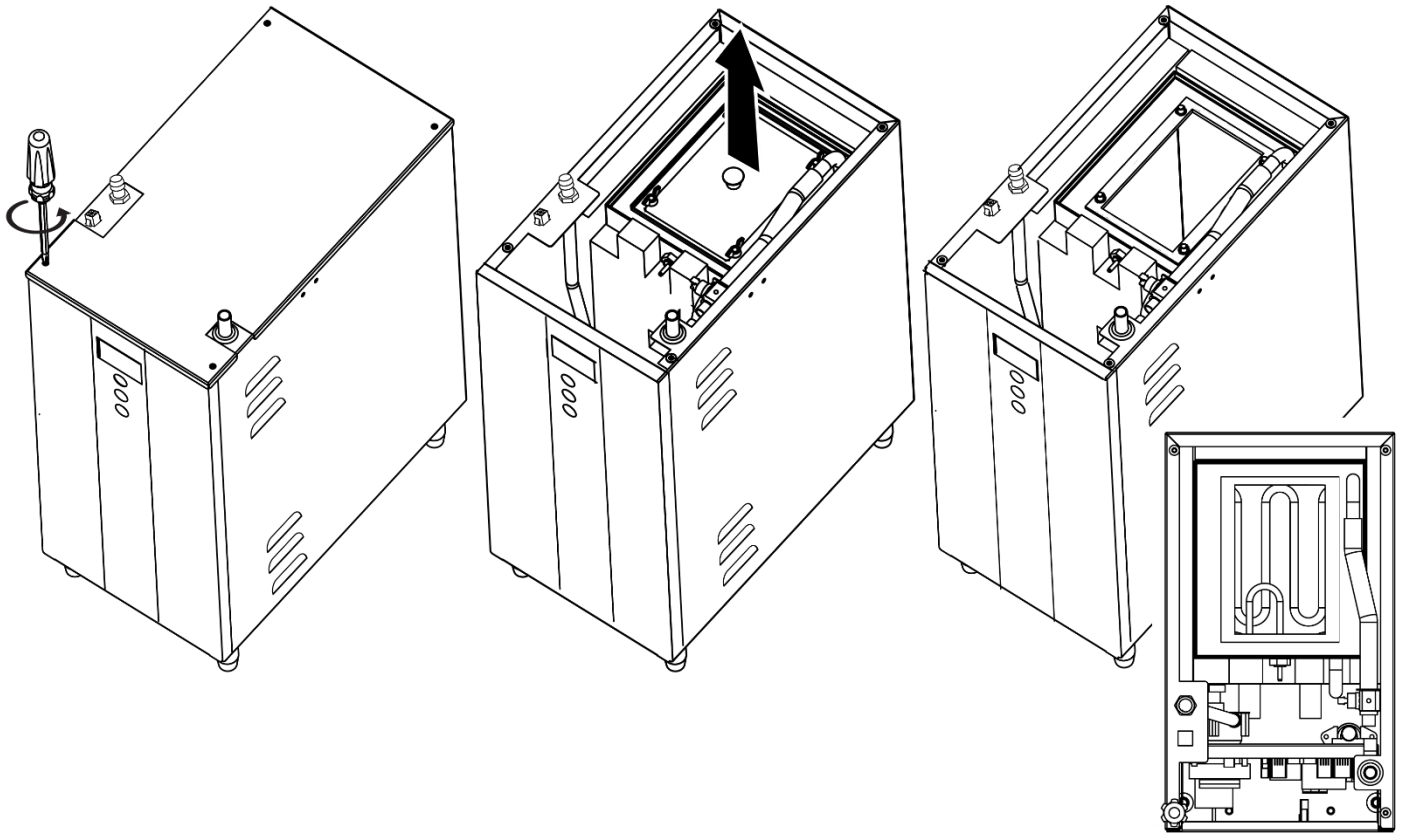
4.2. EXTERNAL ARRANGEMENT



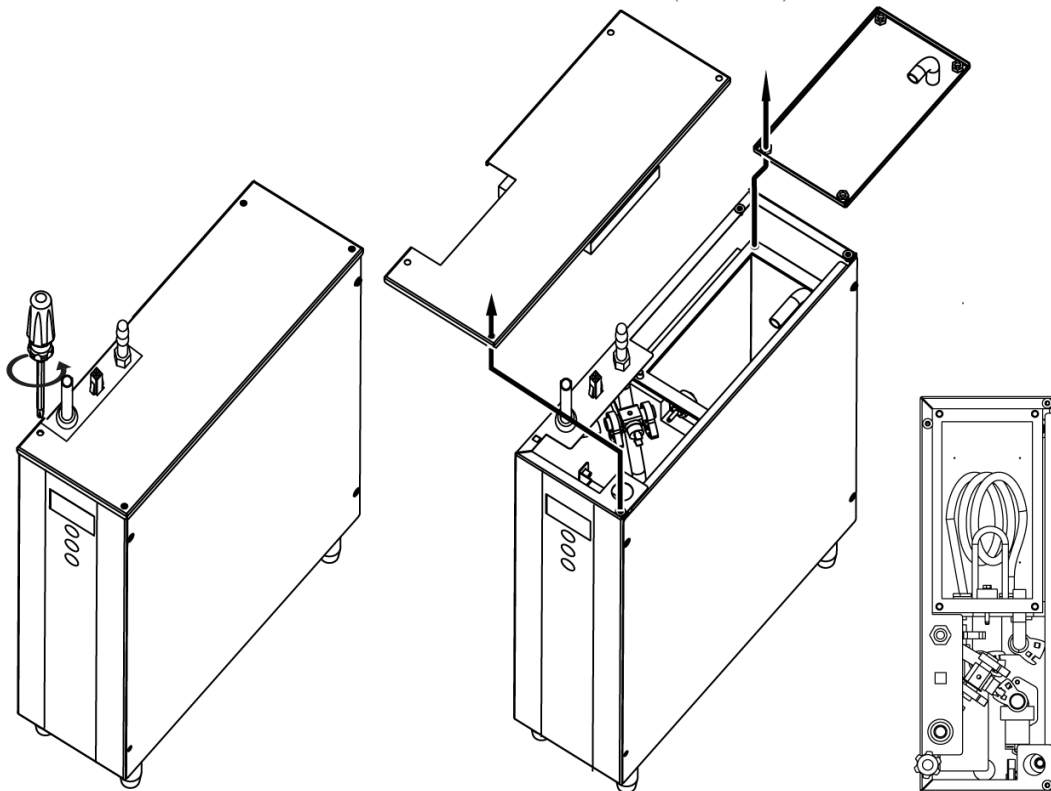
4.3. ACCESS TO INTERNAL COMPONENTS:

To access the tank:

Allow to cool. Remove the outer lid. To remove outer lid, undo 4 pozi headed screws. Ensure that the tank is cool, before removing insulation and inner lid. To remove inner lid, undo 4 butterfly nuts.



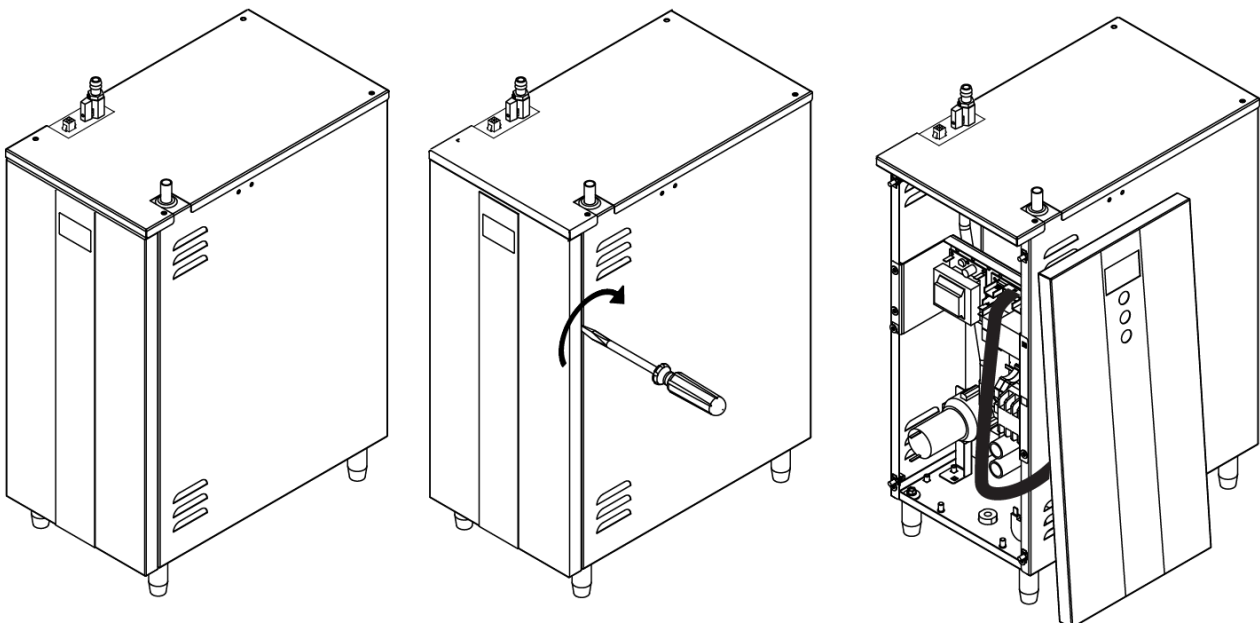
Ecoboiler UC10L / Ecosmart UC10L(SHOWN)



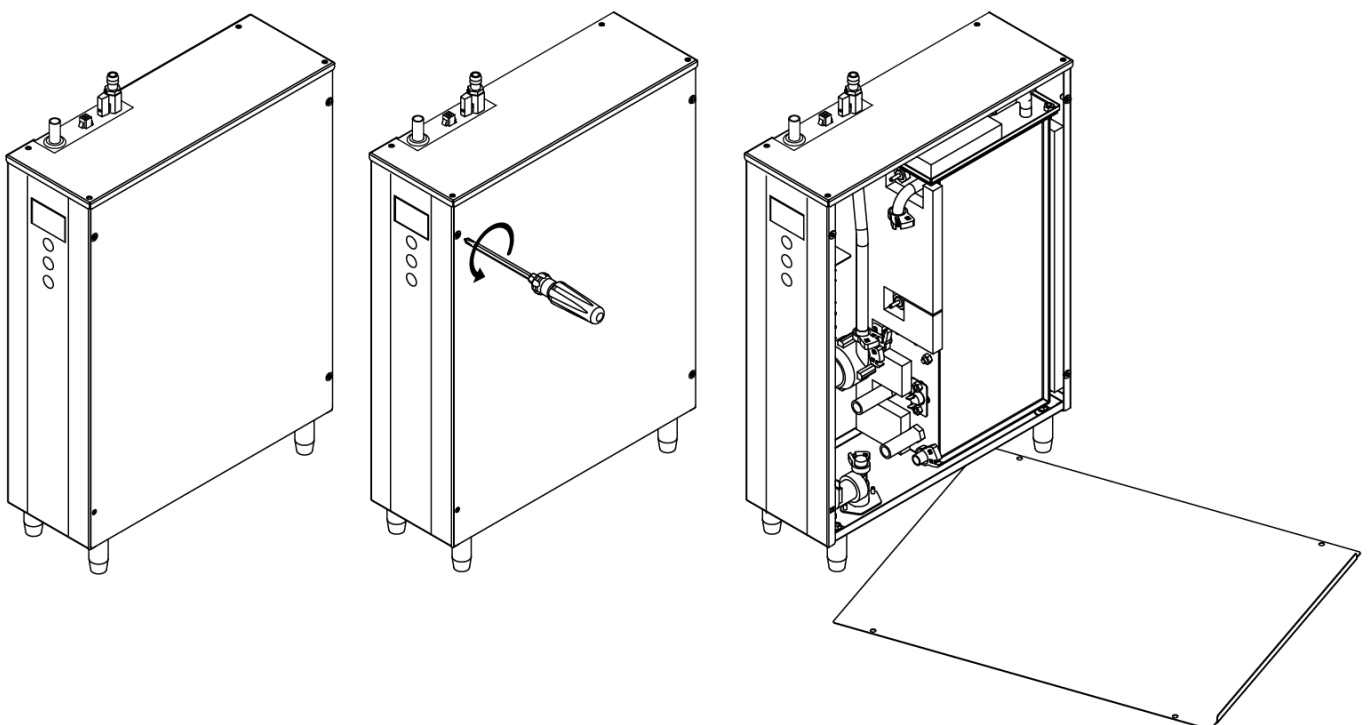
Ecoboiler UC4L / Ecosmart UC4L(SHOWN)

To access the internal components:

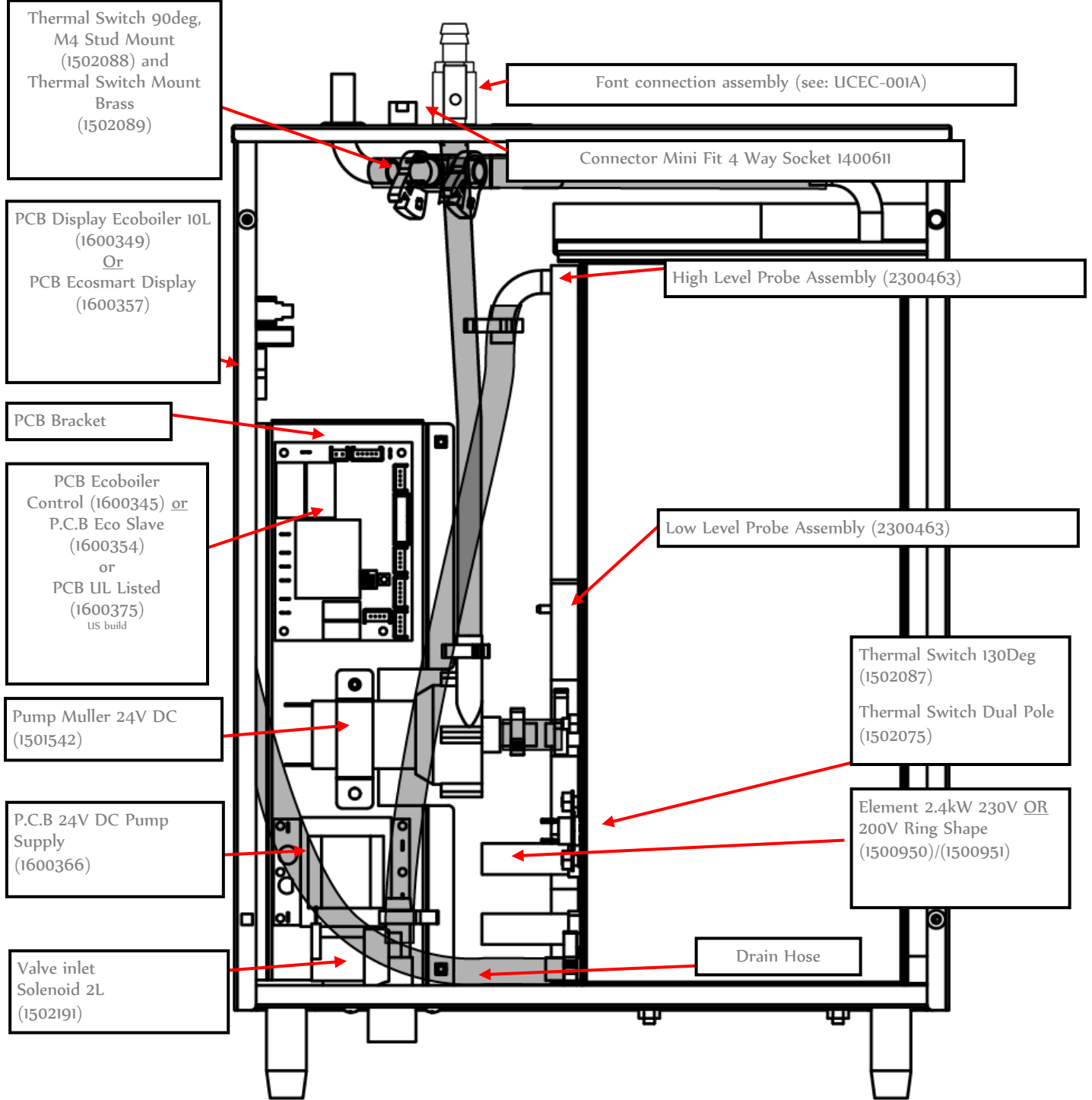
- Disconnect the machine from the electrical supply.
- Allow to cool sufficiently.
- On the 10L machine insert a flat headed screwdriver at the four locations indicated on the picture above and rotate. **Note:** - There is no need to 'lever' the screwdriver – a small rotation is all that is required.
- In the case of the 4L machine remove the 4 screws on the service panel located on the right hand side.
- Place the panel to the side of the machine. This allows access to most of the internal components and the machine does not need to be drained for most maintenance or service operations.
- The Tank can be drained by removing the plug from the end of the drain hose, and draining into an external drain or a large enough container.



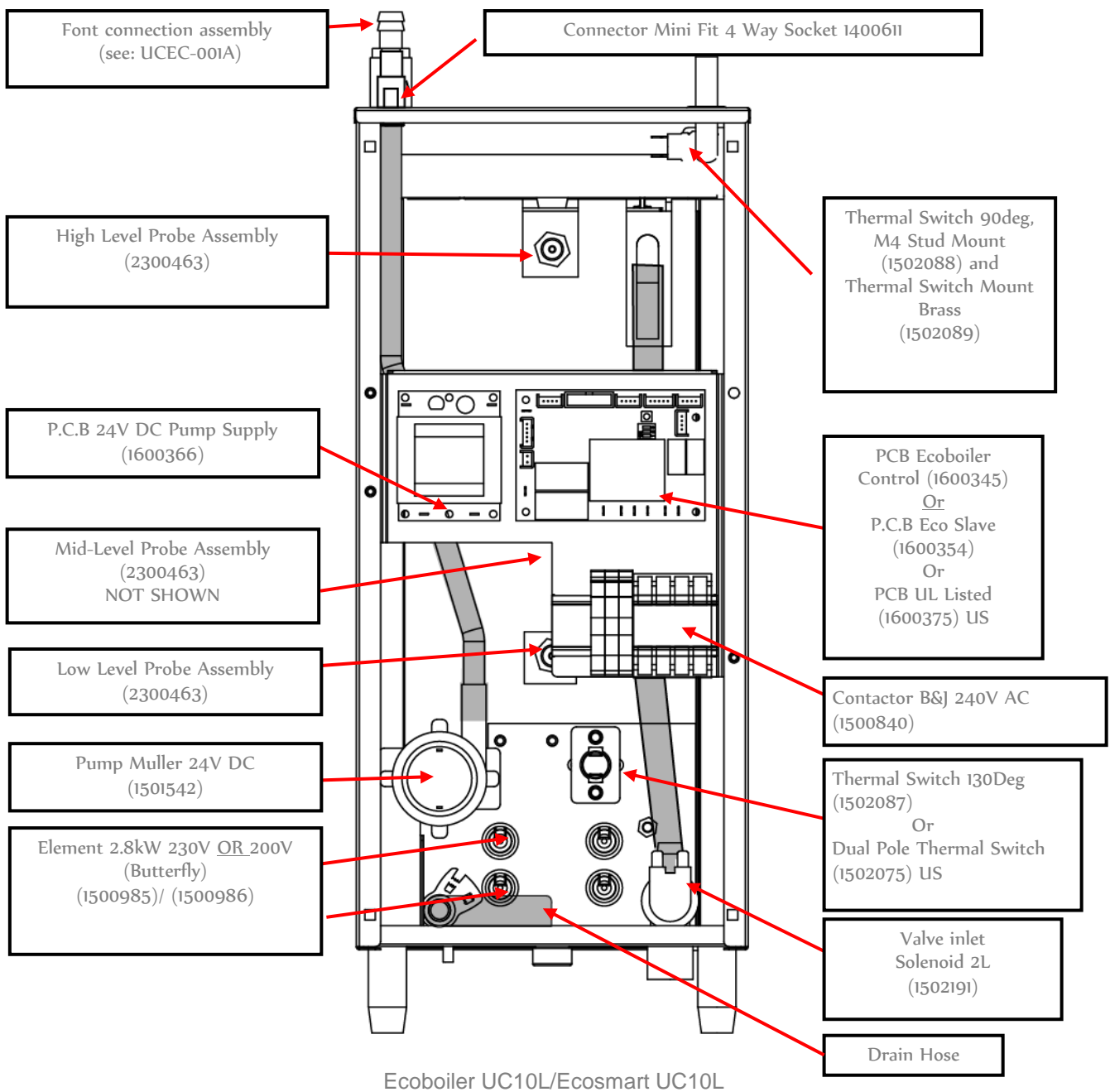
Ecoboiler UC10L / Ecosmart UC10L (SHOWN)



4.4. INTERNAL ARRANGEMENT:



Ecoboiler UC4L/ Ecosmart UC4L



4.5. PCBs:

4.5.1. PCB Layout:

Ecoboiler UC4L/Ecoboiler UC10L

PCB Ecoboiler Control (1600345):

- Controls the heater switching
- Controls the water inlet switching
- Controls tank temperature/temperature adjustment

PCB Ecoboiler Display 10L (1600349) consists of:

- Power On/Off button
- Power On LED
- Status/Ready LED
- ECO Mode On/Off Button
- ECO Mode On LED

Ecosmart UC4L/Ecosmart UC10L

PCB Eco Slave (1600354 or 1600375 US):

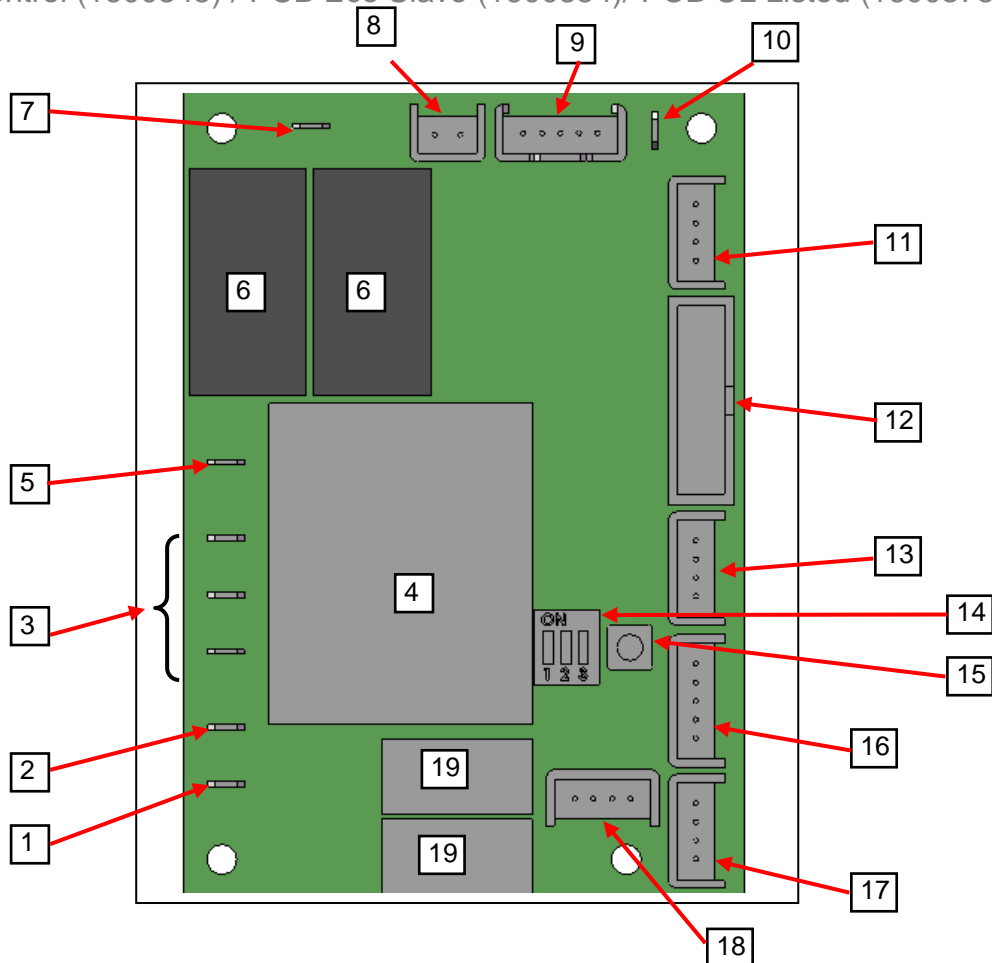
- Controls the heater switching
- Controls the water inlet switching
- Controls tank temperature/temperature adjustment

PCB Ecosmart display (1600357) consists of:

- LCD screen
- Power On/Off button
- Power On LED
- Status/Ready LED
- ECO Mode On/Off Button
- ECO Mode On LED

4.5.2. PCB Ecoboiler Control:

PCB Ecoboiler Control (1600345) / PCB Eco Slave (1600354) / PCB UL Listed (1600375):

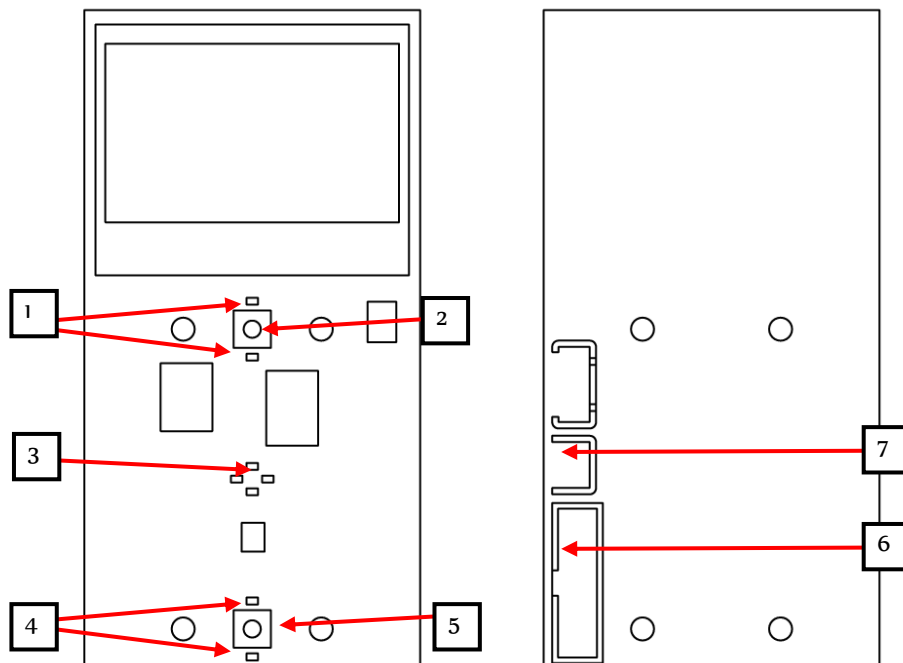


1. Dispense Solenoid Tab
2. Inlet Solenoid Tab
3. Neutral Tabs
4. Transformer
5. Mains Live In Tab
6. Relays - Heater. Switch the element
7. Heater Tab
8. On/Off 2-way Connector. Short circuited on this Ecoboiler machines – power switch controlled through the display PCB
9. LED 5-way Connector
10. Earth Tab
11. Daughter PCB Connector (low voltage). Connects to Daughter PCBs – allows switching of more than one element

12. External Connector
13. Thermistor Connector
14. Dip Switch – 3 way. Allows selection of software for specific machine
15. Tactile Switch. For use during calibration procedure (refer to Calibration in Sec 3.3)
16. Water Level – 5-way connector (low voltage). Connects to Low level and High level probes. Also connects push button on PB variants.
17. Button Connector – 4-way
18. Data I/O Connector – 4-way
19. Relays – Inlet Solenoid

4.5.3. PCB ECOSMART Display (1600357)

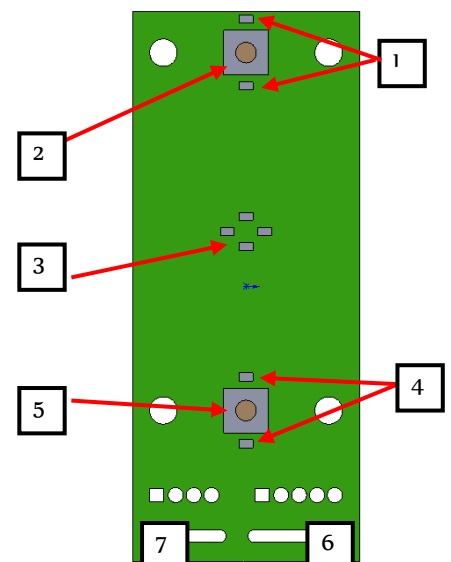
1. Power On LED's. Shows that machine is switched on
2. Power On/Off switch
3. Status LED's. Displays Error signals via a flashing RED LED
4. Eco Mode On LED's
5. Eco Mode On/Of Switch
6. 2 way connector – to Font connector
7. 16 way connector – to PCB Eco boiler 1600354 or 1600375



(For assembly order of 1600357 see :ECOS-020A PCB ECOSMART DISPLAY ASSEMBLY)

4.5.4. PCB Display Eco boiler 10L (1600349)

1. Power On LED's shows that machine is switched on
2. Power On/Off switch
3. Status LED's. Displays Error signals via a flashing RED LED
4. Eco Mode On LED's
5. Eco Mode On/Of Switch
6. 5 way connector – to PCB Eco boiler LED connector
7. 4 way connector – to PCB Eco boiler BUTTONS connector



4.6. TROUBLESHOOTING – DIAGNOSTIC GUIDE:

NOTE FOR THE ECOSMART RANGE IN ADDITION TO THE STATUS LED FLASHING TO INDICATE AN ERROR – THE DISPLAY WILL ALSO PROVIDE INFORMATION

2 FLASH CYCLE – BELOW LOW LEVEL

Display pattern:	<ul style="list-style-type: none">• 2 flashes then a short pause - repeated.
Electronic check and action:	<ul style="list-style-type: none">• This indicates that the low level circuit is open i.e. the probe is not in contact with the water.• The element is switched OFF at this stage and the inlet is left ON.• (Note that if this is a low probe wiring fault, the water will stop at the high level probe regardless of the status of the low level).• This is a recoverable error i.e. the machine does not need to be reset when the problem is solved. (e.g. if a closed mains water stop valve is the problem, opening the valve will allow water into the machine and normal function will resume when the low level probe is reached)
Probable causes:	<ul style="list-style-type: none">• The water level is below the low level probe, which is normal when the machine fills for the first time. (Can be flashing for up to 2 min at start up)• The low level probe wire is disconnected, or there is another wiring fault• (e.g. a bad earth (return) connection between the PCB and the Tank)
Action required:	<ul style="list-style-type: none">• Check that the water pressure is OK and ensure that the stop valve is open.• Check that the inlet solenoid is working.• If the water level is above the level of the low probe, check the probe circuit wiring

3 FLASH CYCLE – THERMISTOR SHORT CIRCUIT

Display pattern:	<ul style="list-style-type: none">• 3 flashes then a short pause - repeated.
Electronic check and action:	<ul style="list-style-type: none">• This indicates that the Thermistor is measuring zero resistance. It assumes the thermistor has failed short circuit.• The element and inlet valve are turned OFF when this error is detected• This is a recoverable error. When the correct range of resistance is measured, normal operation resumes.
Probable causes:	<ul style="list-style-type: none">• The thermistor has failed.
Action required:	<ul style="list-style-type: none">• Replace the thermistor.

4 FLASH CYCLE – NOT HEATING

Display pattern:	<ul style="list-style-type: none">• 4 flashes then a short pause - repeated.
Electronic check and action:	<ul style="list-style-type: none">• This checks that the temperature is increasing when the heater is on.• Measures the rate that the temperature increases in a specified time. This error is only displayed after 20 mins of the heater being on continuously. When the error is detected, the element and inlet valve are turned off.• This is a non recoverable error. The machine needs to be reset when this problem is solved.
Probable causes:	<ul style="list-style-type: none">• The elements have failed• Wiring fault
Action required:	<ul style="list-style-type: none">• Check that the resistance on the elements. If there is a reasonable resistance (18-22Ω) on the element it probably has not failed, so the wiring might be at fault.

5 FLASH CYCLE – THERMISTOR OPEN CIRCUIT

Display pattern:	<ul style="list-style-type: none">• 5 flashes then a short pause - repeated.
Electronic check and action:	<ul style="list-style-type: none">• This indicates that the Thermistor is measuring such a large resistance that it assumes the thermistor circuit is open.• The element and inlet valve are turned OFF when this error is detected• This is a recoverable error. When the correct range of resistance is measured, normal operation resumes
Probable causes:	<ul style="list-style-type: none">• The thermistor probe is unplugged from the 4way connector on the PCB or the thermistor has failed open circuit.
Action required:	<ul style="list-style-type: none">• Check that the thermistor is plugged in to the PCB correctly. If it is, replace the thermistor.

6 FLASH CYCLE – NOT FILLING

Display pattern:	<ul style="list-style-type: none">• 6 flashes then a short pause - repeated.
Electronic check and action:	<ul style="list-style-type: none">• This checks that the water in the tank cools when the inlet solenoid valve is switched on.• This is a non-recoverable error. This checks that the water in the tank is cooled by when the inlet solenoid valve is opened. If the water pressure is within the specifications (5-50psi), the inlet solenoid should not be on for more than a few seconds. If this water temperature has not decreased by the required amount• (1 degree per minute), the inlet solenoid is switched off and the 6 flash cycle is displayed.
Probable causes:	<ul style="list-style-type: none">• Mains water pressure problem or the mains water stop valve is closed.• Inlet solenoid valve failure.
Action required:	<ul style="list-style-type: none">• Check the mains water supply. (Note: Temporary loss of water pressure

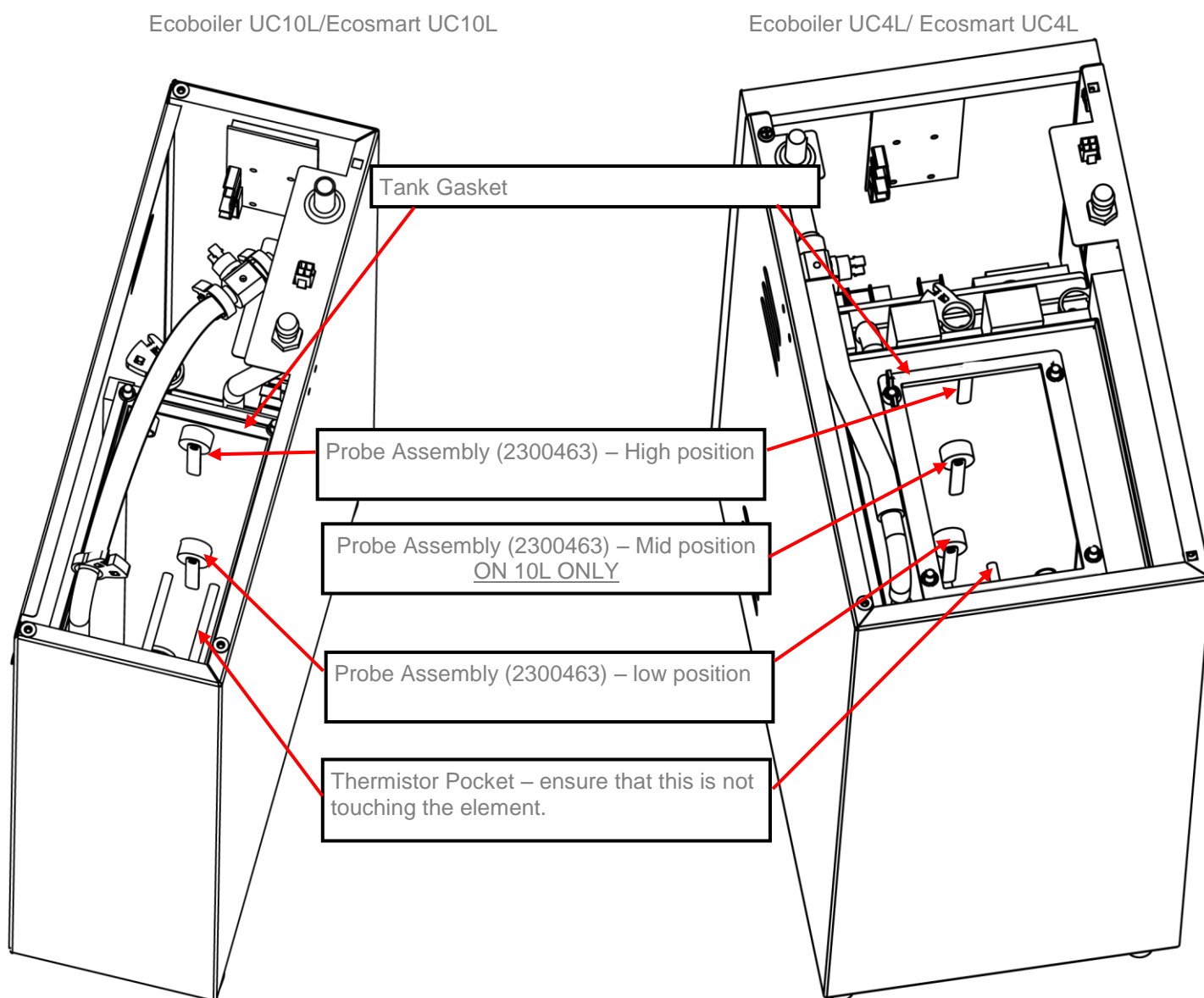
can occur in certain sites – particularly when various machines are plumbed to the same mains water supply.) If the water supply is ok, reset the machine (switch the machine Off and On again). This will reset the error and if the water supply is ok, the machine will return to normal operation.

- **NOTE: If the water supply is the problem, ensure that this is rectified or this error will re-occur.**
- If there is no problem with the mains water supply, check that the inlet solenoid valve is working.

4.7. Tank Components

The tank internals are detailed below. Care should be taken when cleaning inside the tank. The level probes provide much of the control inputs into the PCB and are critical to the operation of the machine. The wiring to these should be checked regularly and the probes themselves should be cleaned whenever the machine is serviced.

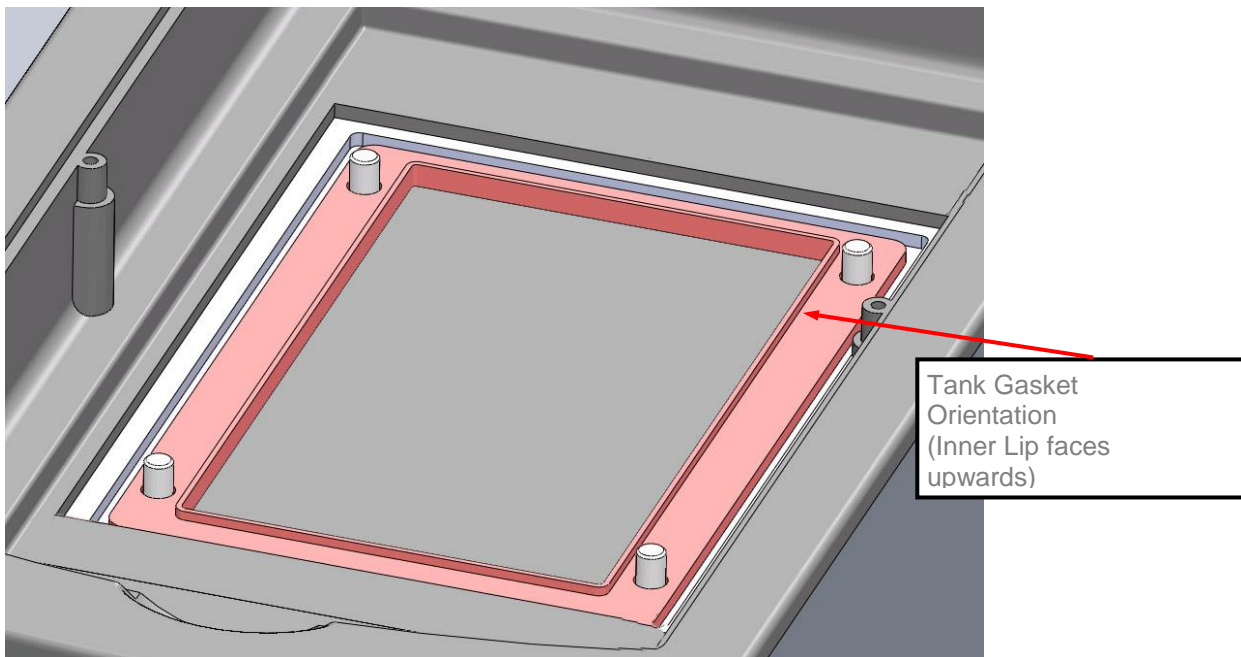
There are 3 level probes on the 10L Ecoboiler versions and 2 level probes on the 4L versions.



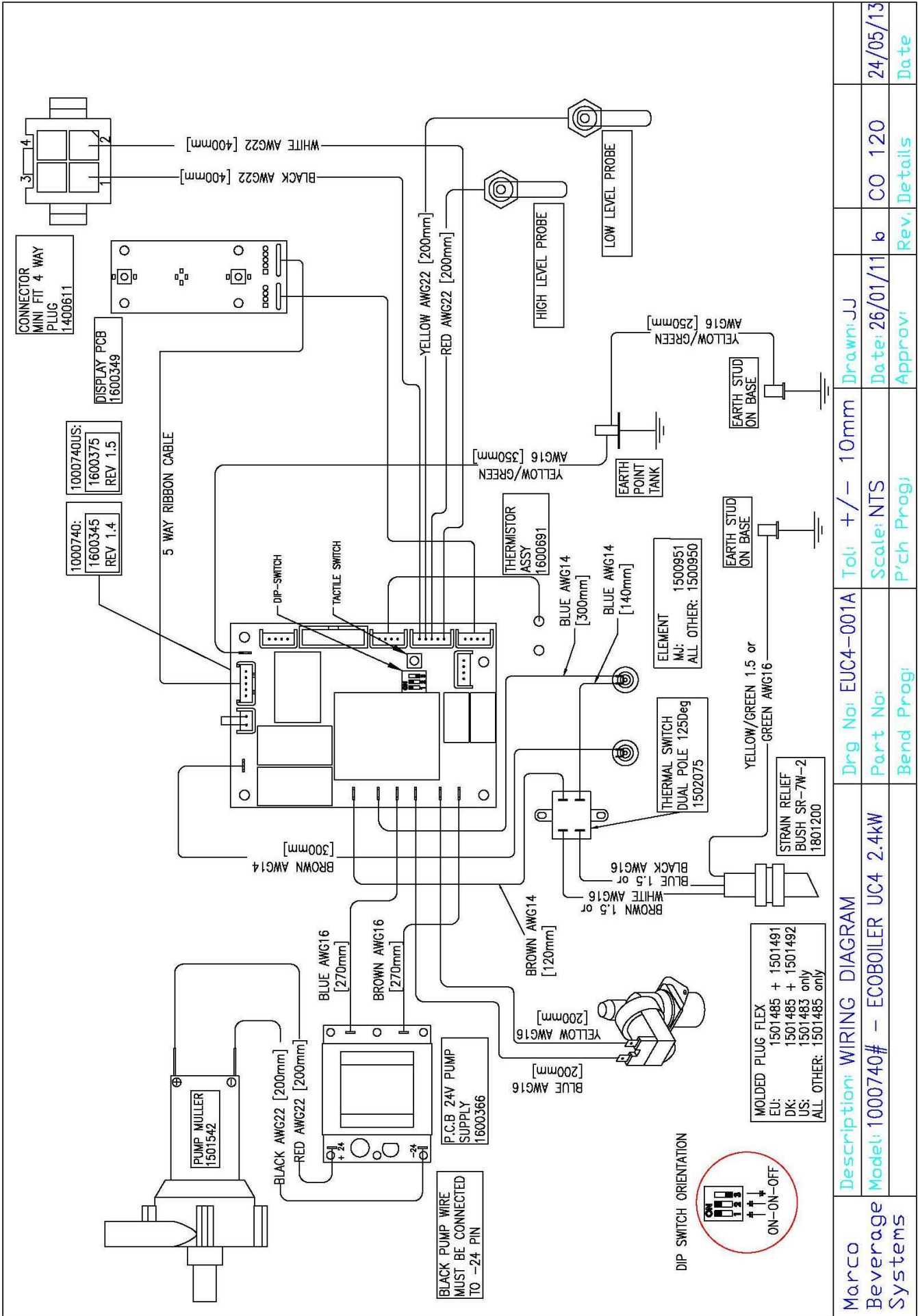
4.8. Descaling Procedure

To descale the machine thoroughly:

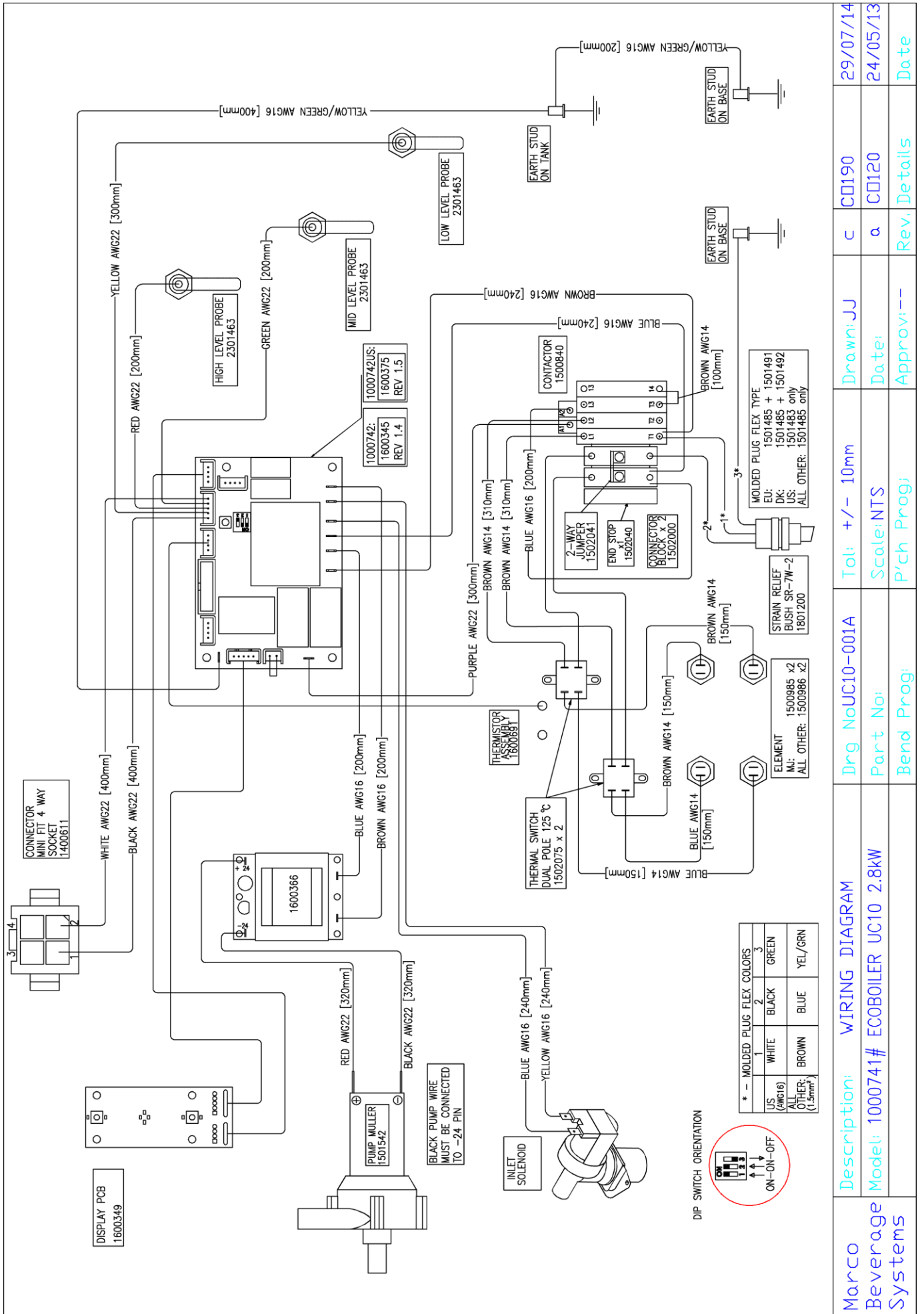
- Unplug the machine.
- Disconnect from the water supply.
- Drain as much water from the tank as possible.
- Remove the lids and allow the machine to cool completely.
- Drain all the water from the machine.
- Attempt to remove as much scale as possible by hand.
- Reconnect machine and start up once again.
- Add a descale solution (follow instructions as given). Flush the machine thoroughly before use



4.9. Wiring diagram: Eco boiler UC4L 2.4kW 1000740

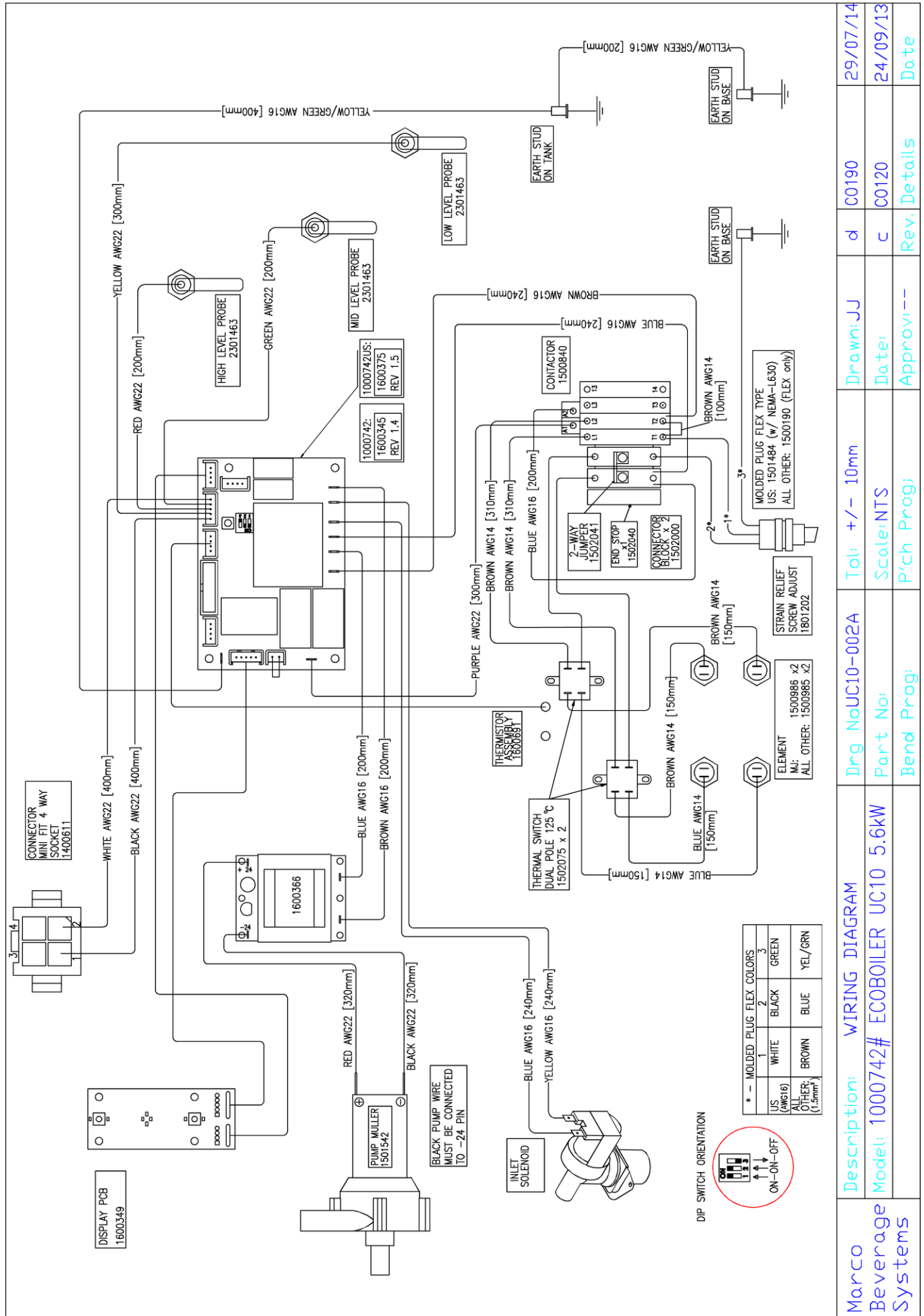


4.10. Wiring Diagrams: EcoBoiler UC10L 1000741



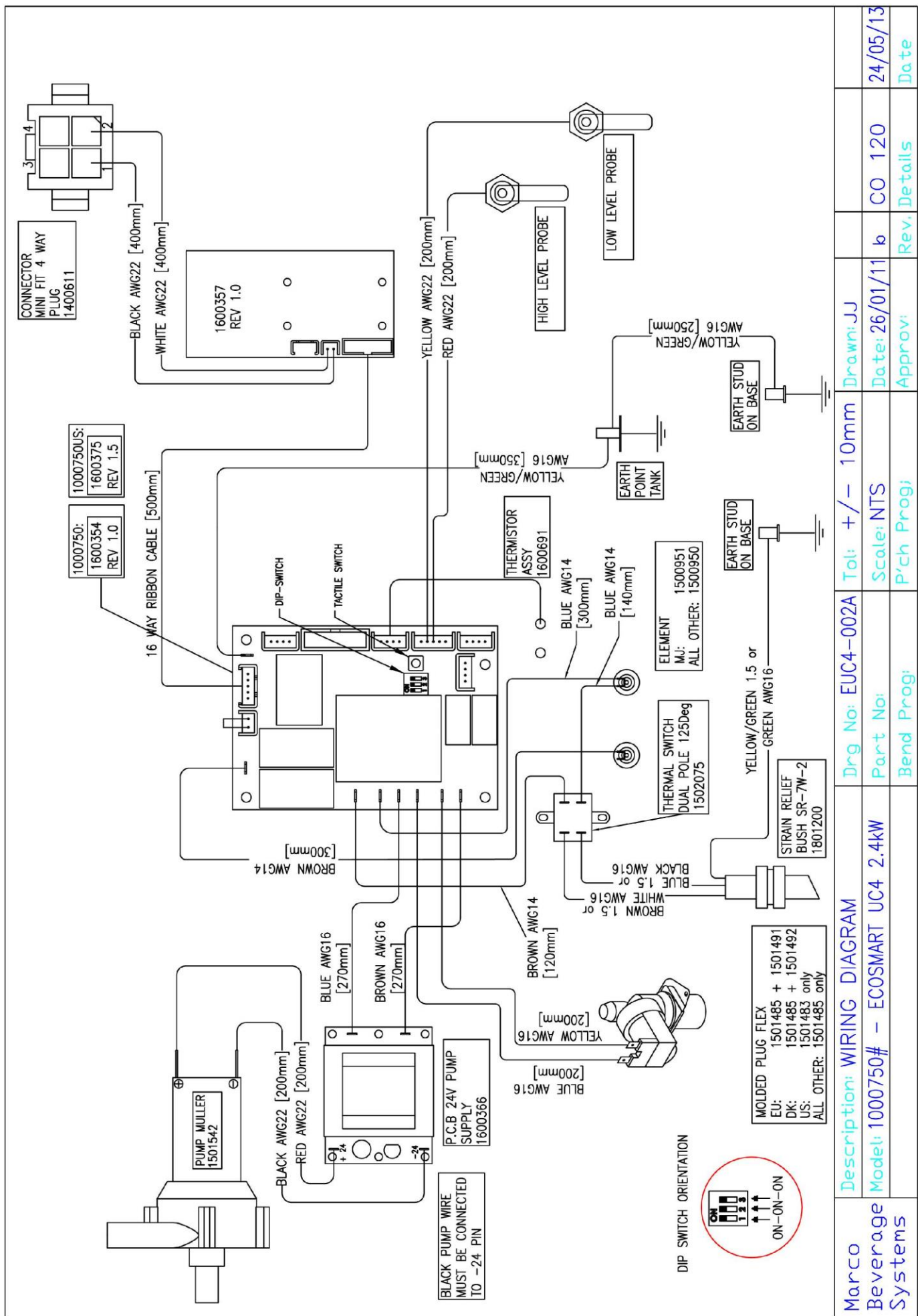
Marco Beverage Systems	Description: WIRING DIAGRAM	Drg No: UC10-001A	Tol: +/- 10mm	Drawn: JJ	c	CD190	29/07/14
	Model: 1000741# ECOBOILER UC10 2.8kW	Part No:	Scale: NTS	Date:	a	CD120	24/05/13
		Bend Prog:	P'ch Prog:	Approv: --		Rev: Details	Date

4.II. Wiring Diagram: Eco boiler UC10L 5.6kW 1000742



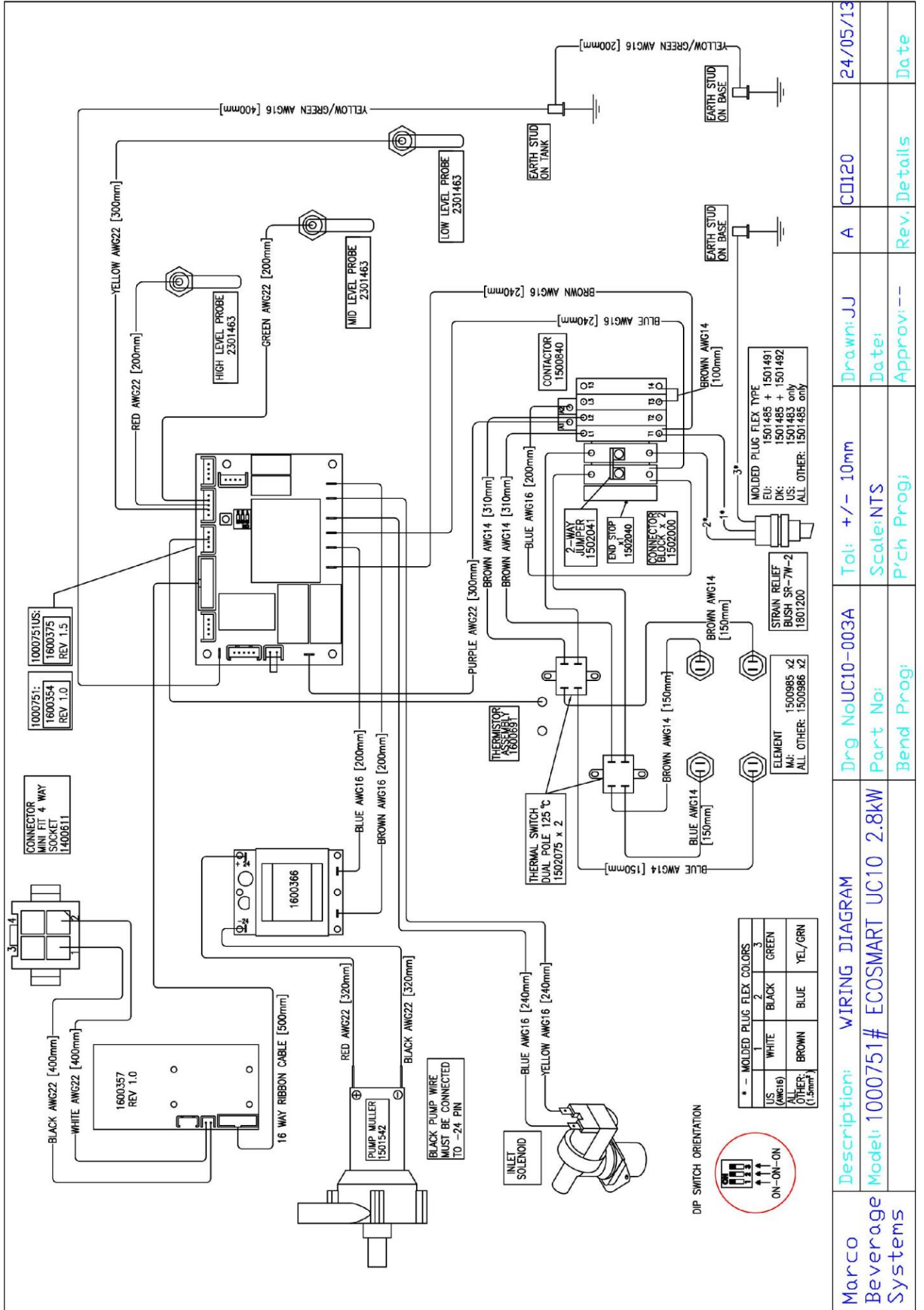
Marco Beverage Systems	Description: WIRING DIAGRAM	Drwg No: UC10-002A	Tol: +/- 10mm	Scale: NTS	P'ch Prog:	29/07/14
	Model: 1000742# ECOBOILER UC10 5.6kW	Part No:				24/09/13
		Bend Prog:			Approvi: --	Date
					Drawn: JJ	Rev: Details
					Date: c	Date

4.12. Wiring Diagram: Ecosmart UC4L 1000750



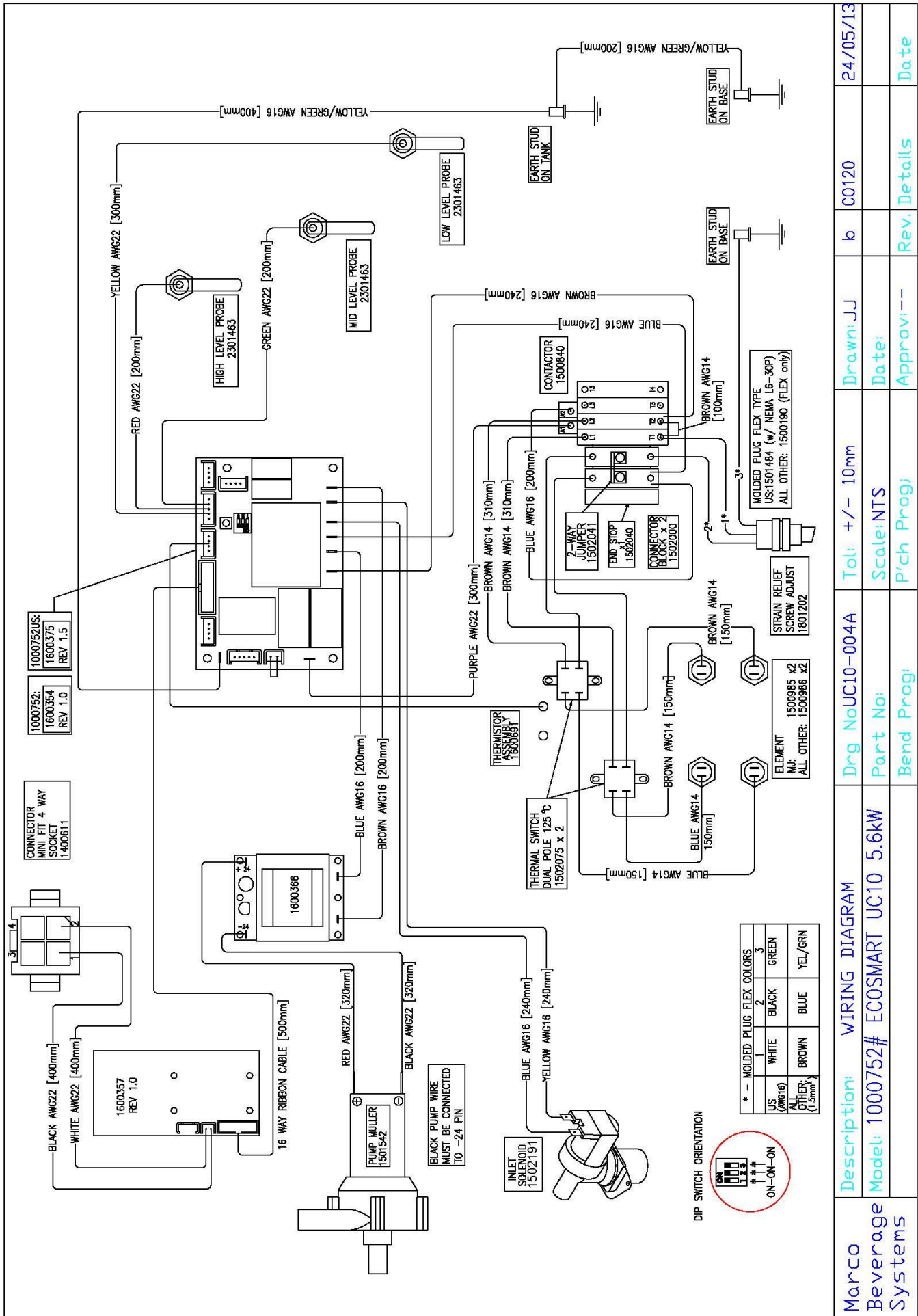
Marco Beverage Systems	Description: WIRING DIAGRAM	Drg No: EUC4-002A	Tol: +/- 10mm	Drawn: JJ	
	Model: 1000750# - ECOSMART UC4 2.4kW	Part No:	Scale: NTS	Date: 26/01/11	CO 120
		Bend Prog:	P'ch Prog:	Approv:	Rev: Details
					Date: 24/05/13

4.13 Wiring Diagram: Ecosmart UC10L 1000751



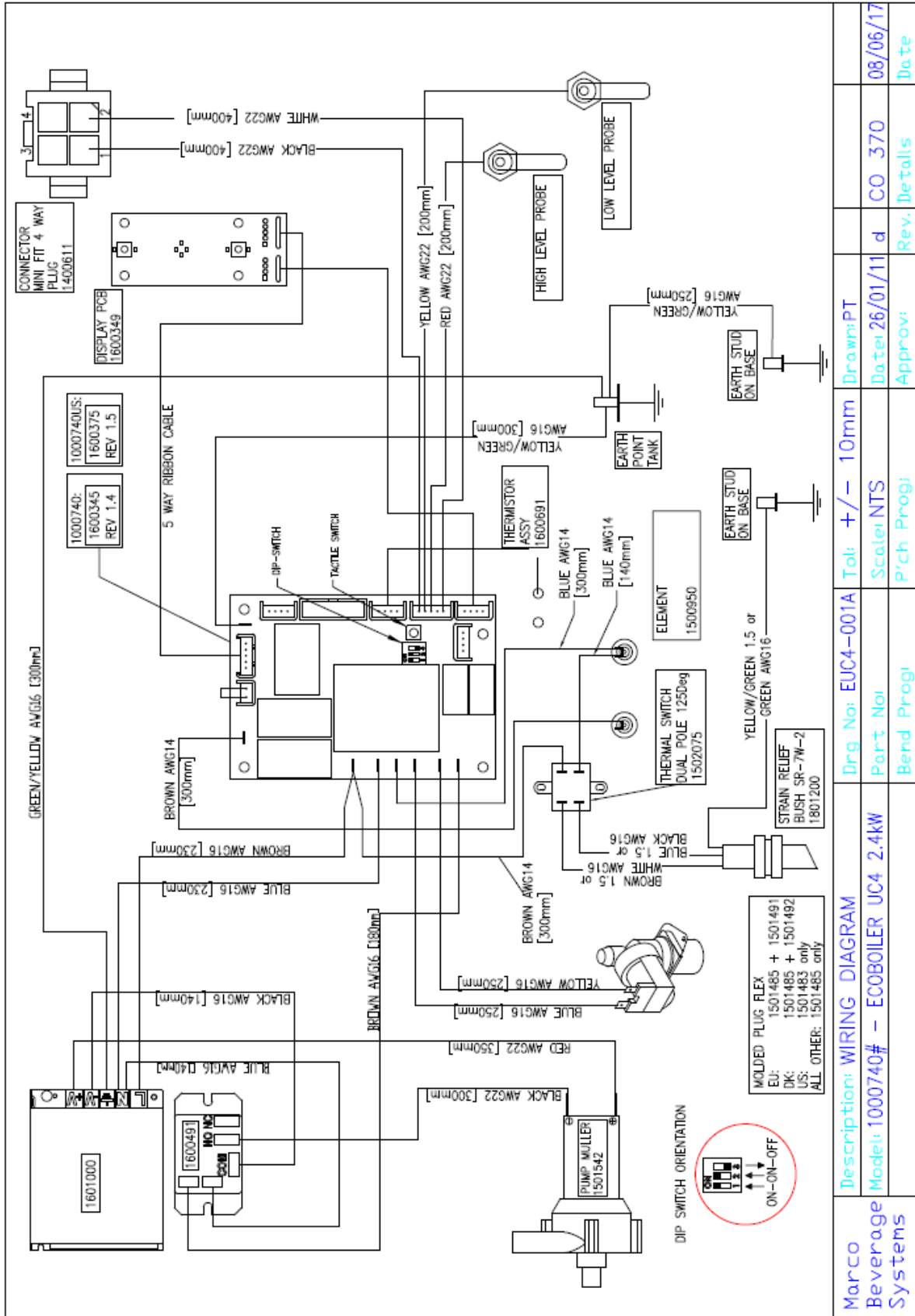
Marco Beverage Systems	Description: WIRING DIAGRAM	Drg No: UC10-003A	Tol: +/- 10mm	Drawn: JJ	CDI20	24/05/13
	Model: 1000751# ECOSMART UC10 2.8kW	Part No:	Scale: NTS	Date:		
		Bend Prog:	P'ch Prog:	Approv: --	Rev: Details	Date

4.14 Wiring Diagram: Ecosmart UC10L 5.6kW 1000752 US VERSION



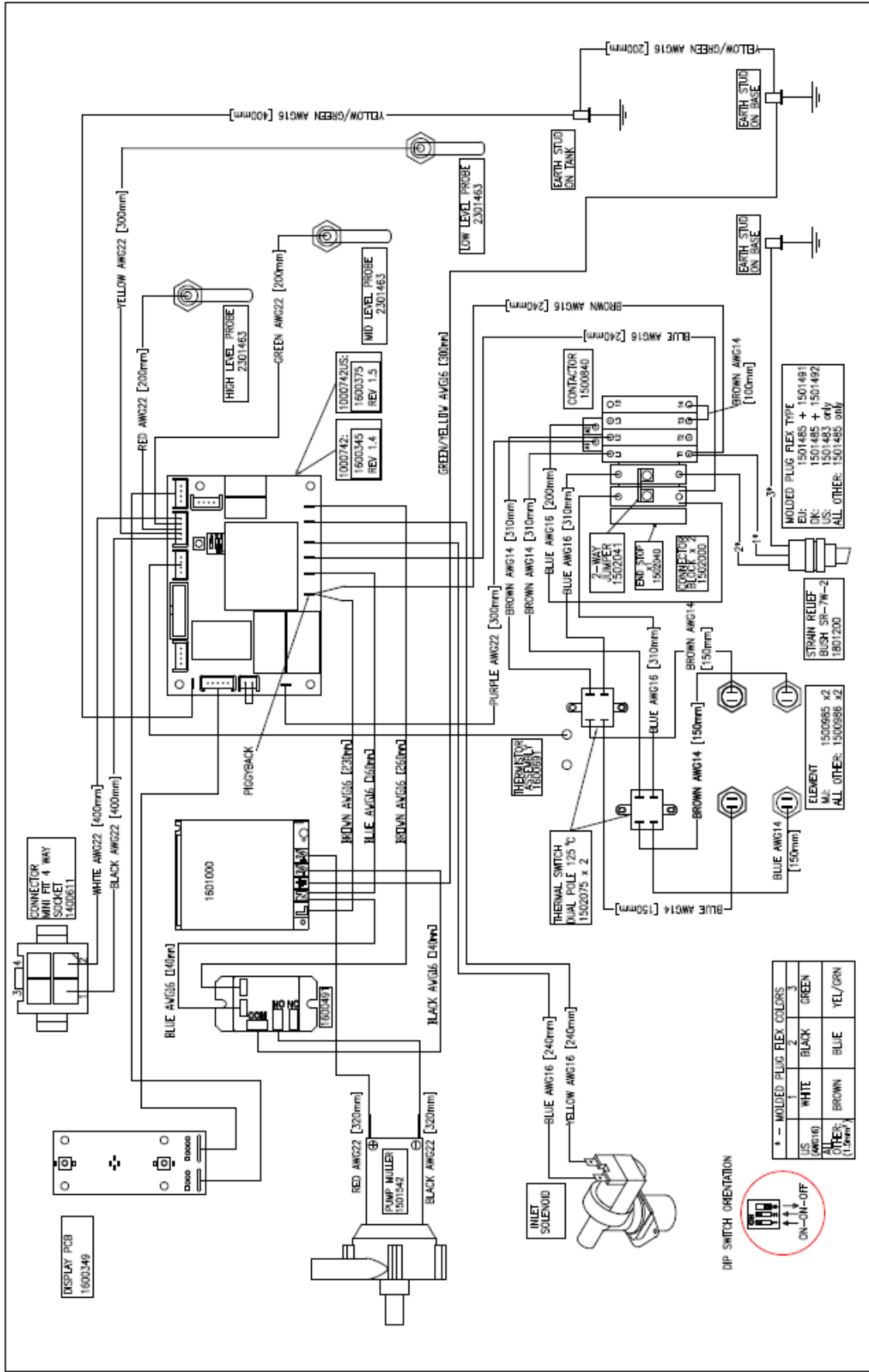
Marco Beverage Systems	Description: WIRING DIAGRAM	Dwg No: UC10-004A	Tol: +/- 10mm	Drawn: JJ	CO120	24/05/13
	Model: 1000752# ECOSMART UC10 5.6kW	Part No:	Scale: NTS	Date:	b	
		Bend Prog:	P'ch Prog:	Approv: --	Rev: Details	Date

4.15 Wiring diagram: Eco boiler UC4L 2.4kW 1000740 Serial No: 0817.....Onwards New pump PSU



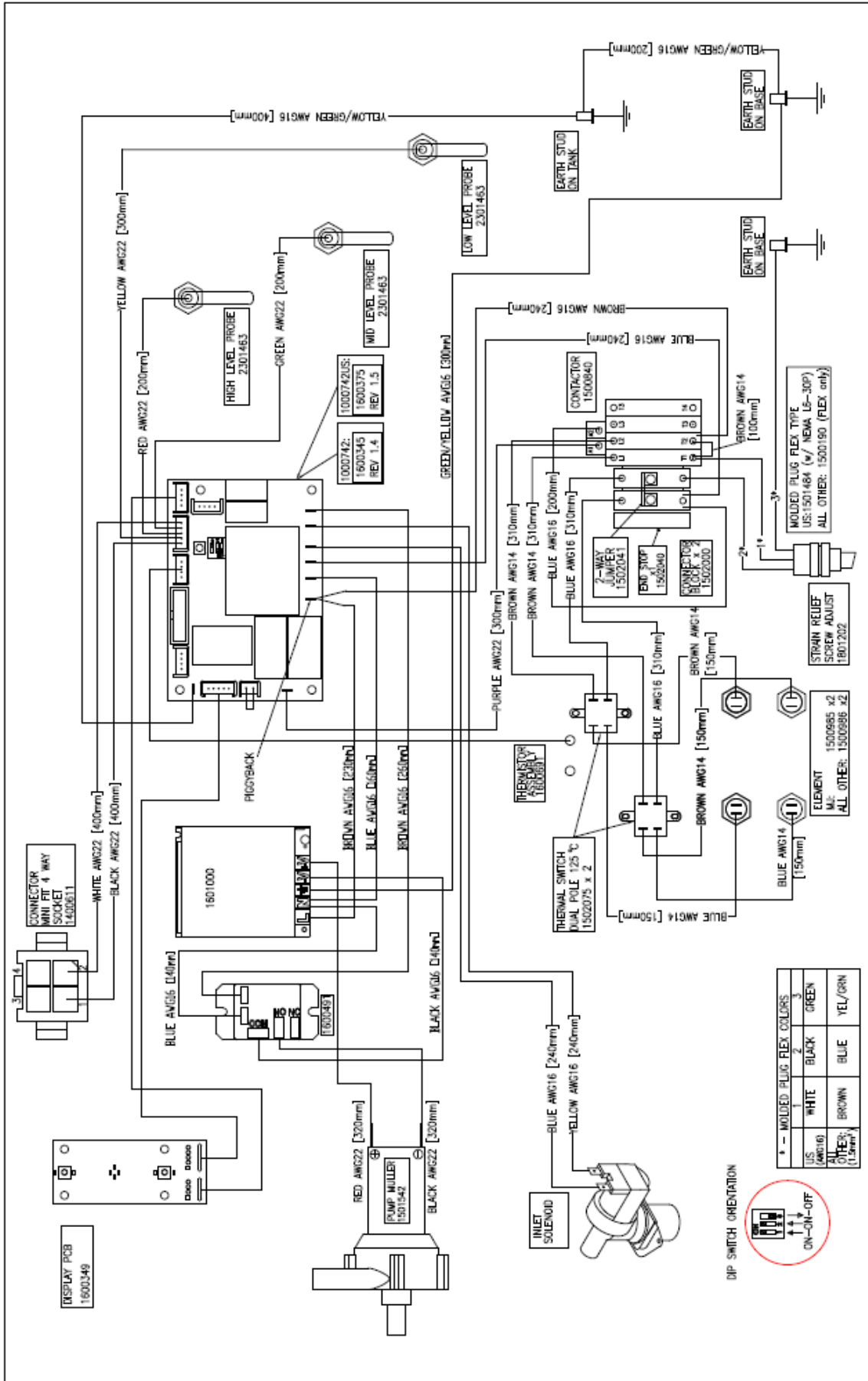
Marco Beverage Systems	Description: WIRING DIAGRAM	Drwg No: EUC4-001A	Tol: +/- 10mm	Drawn: PT	
	Model: 1000740# - ECOBOILER UC4 2.4kW	Part No:	Scale: NTS	Date: 26/01/11	CO 370
		Bend Prog:	Prch Prog:	Approv:	Rev: Details
					Date: 08/06/17

4.16 Wiring Diagrams: Ecoboiler UC10L 1000741 Serial No: 0817.....Onwards New pump PSU



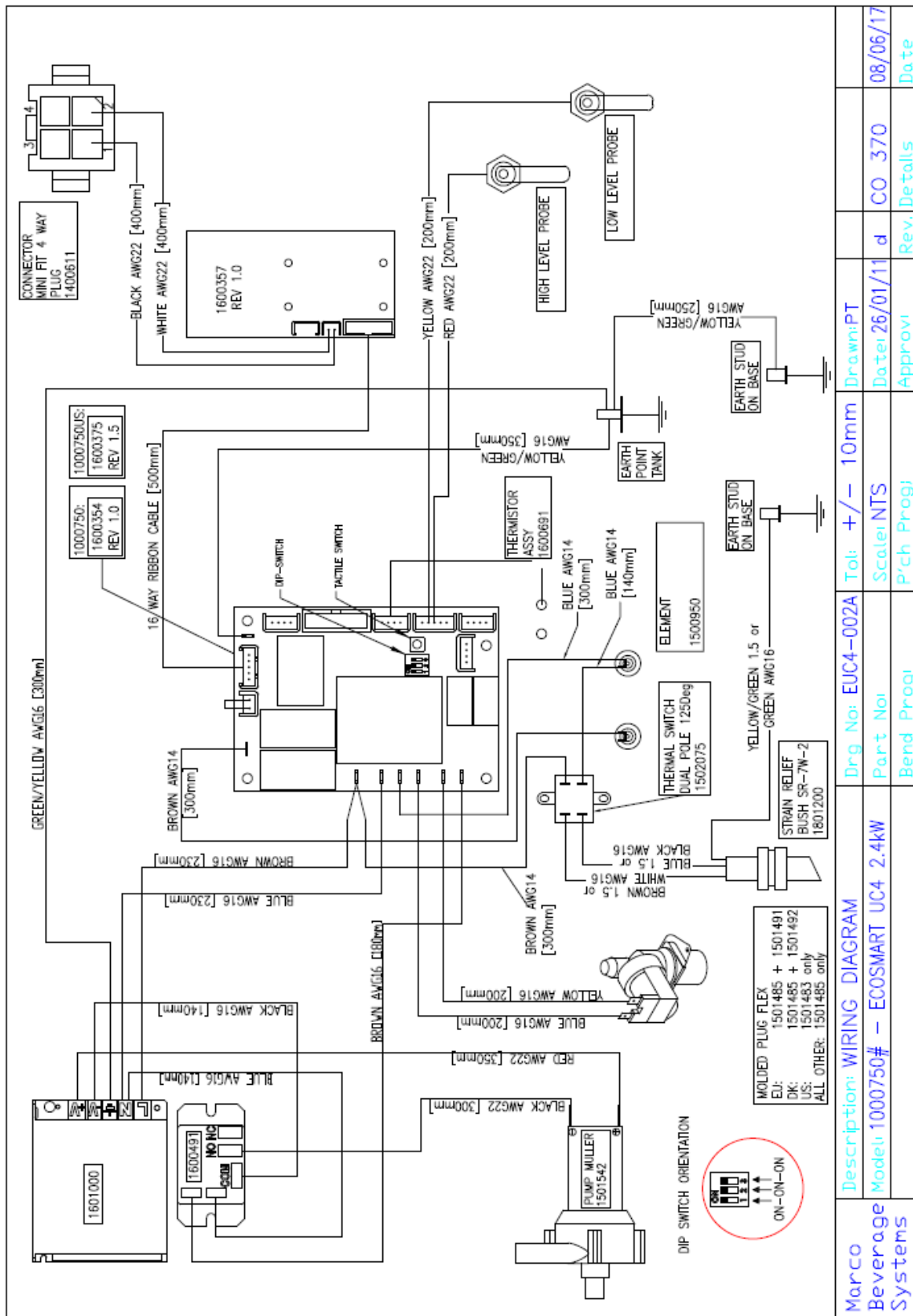
Marco Beverage Systems	Description: WIRING DIAGRAM	Drwg No: UC10-001A	Tol: +/- 10mm	Drawn: PT	d	0367	08/06/17
	Model: 1000741# ECOBOILER UC10 2.8kW	Part No:	Scale: INTS	Date:			
		Bend Prog:	P'rch Prog:	Approv: --	Rev.	Details	Date

4.17 Wiring Diagram: EcoBoiler UC10L 5.6kW 1000742 Serial No: 0817.....Onwards New pump PSU



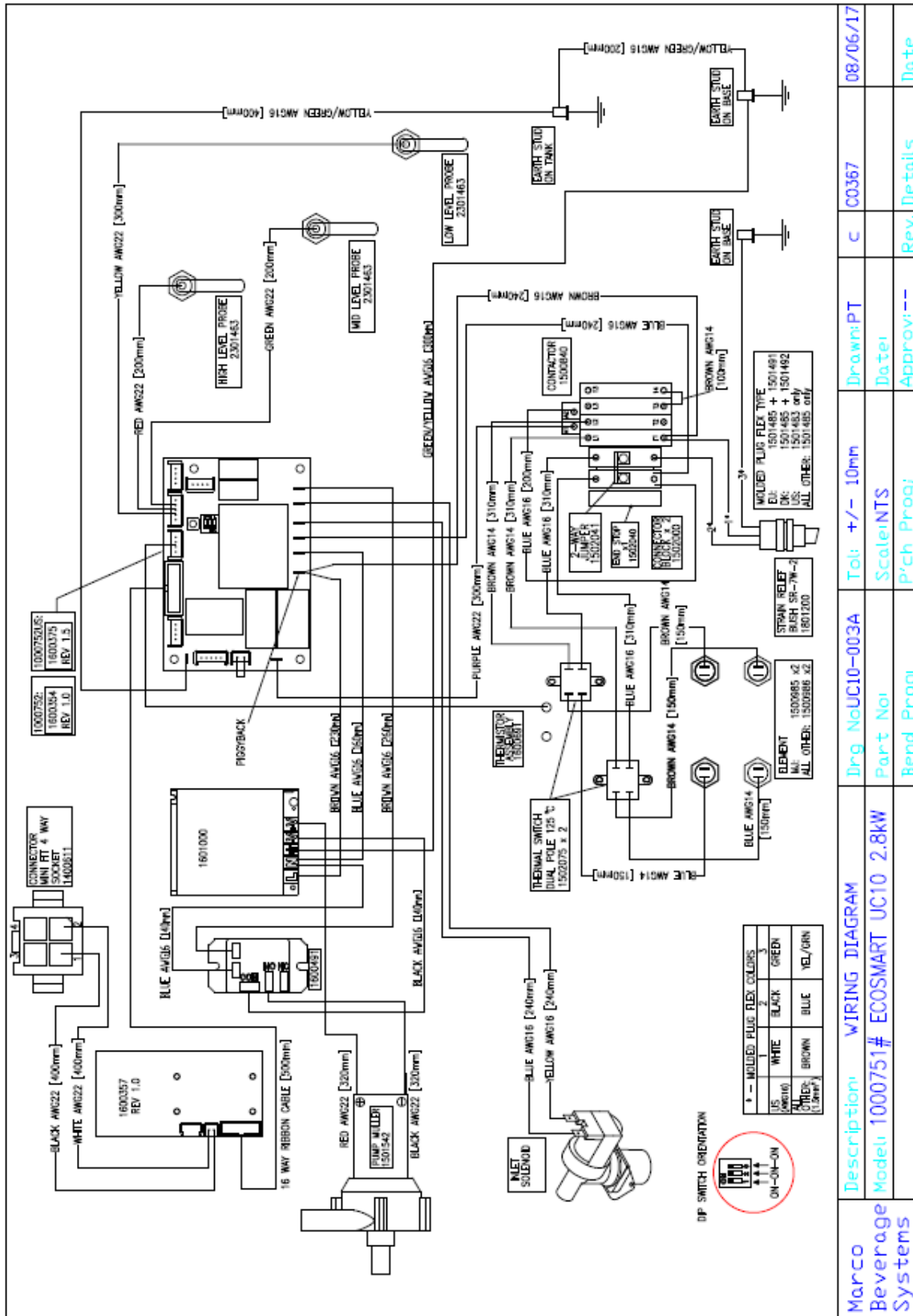
Marco Beverage Systems	Description: wIRING DIAGRAM	Drwg No UC10-002A	Tol: +/- 10mm	Drawn:PT	e	C0367	08/06/17
	Model: 1000742# ECOBOILER UC10 5.6kW	Part No:	Scale:NTS	Date:			
		Bend Prog:	P'ch Prog:	Approv:--		Rev. Details	Date

4.18 Wiring Diagram: Ecosmart UC4L 1000750 Serial No: 0817.....Onwards New pump PSU

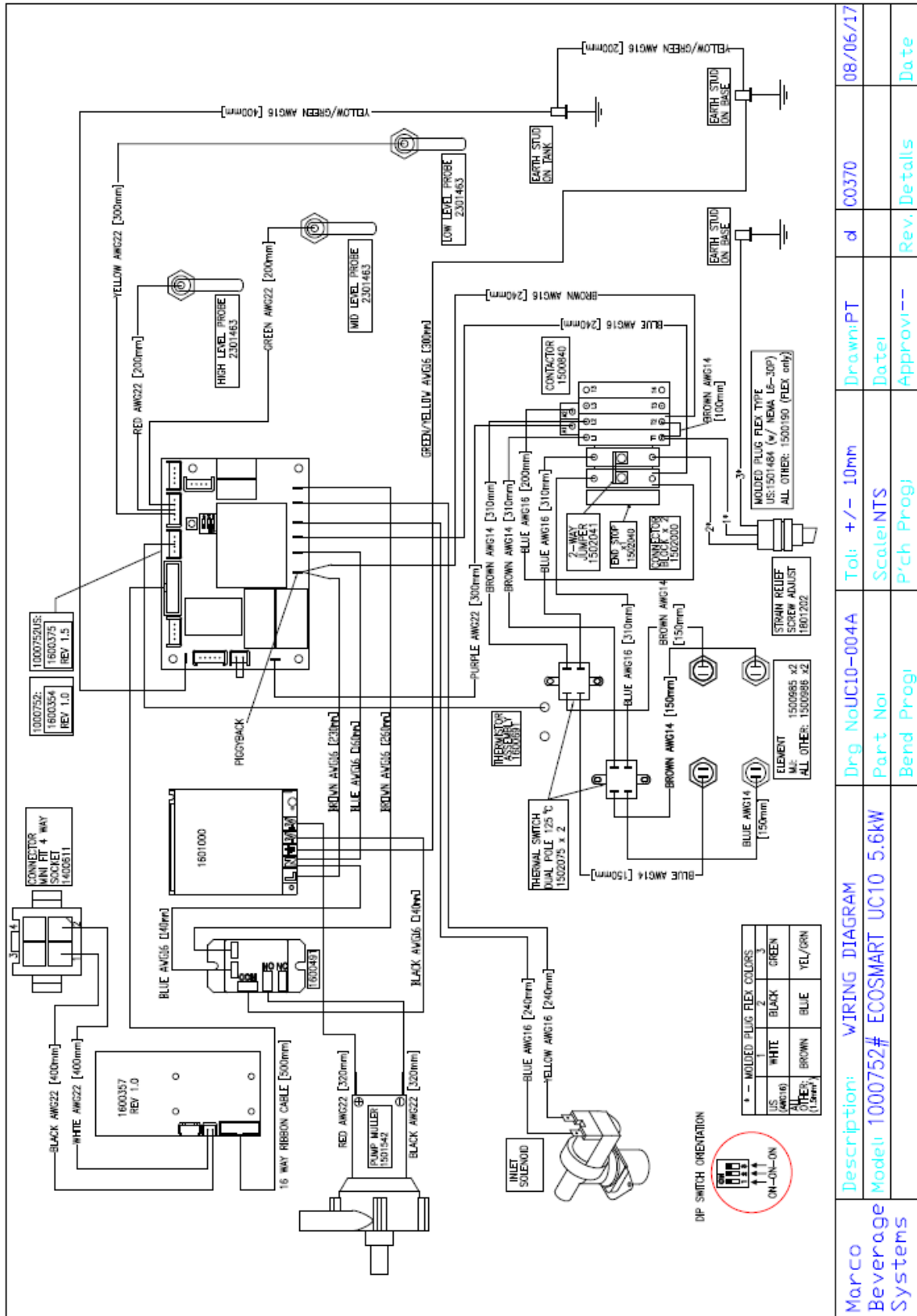


Marco Beverage Systems	Description: WIRING DIAGRAM		Drwg No: EUC4-002A	Tol: +/- 10mm	Drawn: PT
	Model: 1000750# - ECOSMART UC4 2.4kW	Part No:	Scale: NTS	Bend Progi	Date: 26/01/11
				Approvi	Rev: Details
					Date: 08/06/17

4.19 Wiring Diagram: Ecosmart UC10L 1000751 Serial No: 0817.....Onwards New pump PSU



4.20 Wiring Diagram: Ecosmart UC10L 5.6kW 1000752 **US VERSION** Serial No: 0817.....Onwards New pump PSU



Marco Beverage Systems	Description: WIRING DIAGRAM	Dwg No: UC10-004A	Tol: +/- 10mm	Drawn: PT	d	C0370	08/06/17
	Model: 1000752# ECOSMART UC10 5.6KW	Part No:	Scale: NTS	Date:			
		Bend Prog:	P'ch Prog:	Approv: --	Rev:	Details	Date

4.21 Spare Parts List

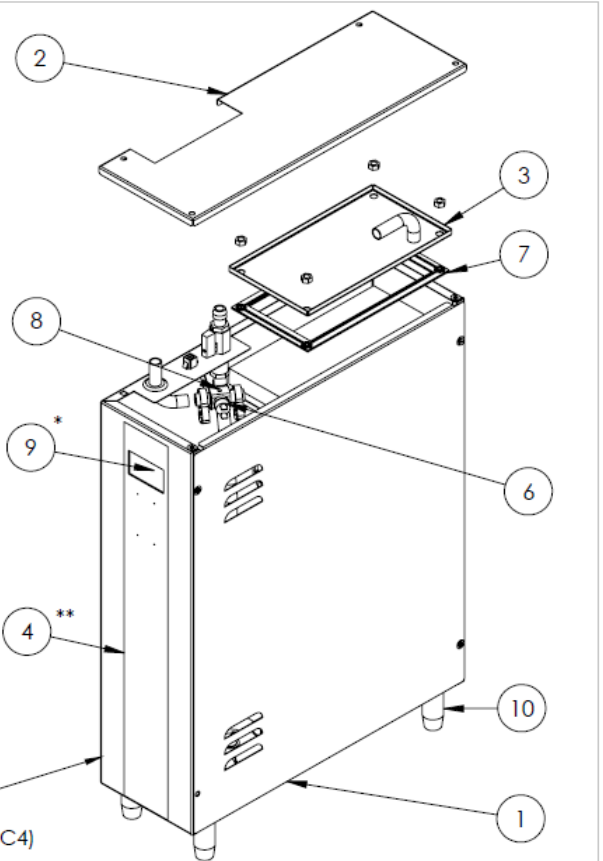
Model: UC4 P/N 1000740 & 1000750

ITEM NO.	PART NUMBER	DESCRIPTION	Default/ QTY.
1	2300394	Service Panel 1000740 1000750	1
2	2300393	LID OUTER 1000740 1000750	1
3	2300389	LID INNER 1000740 1000750	1
4	1900673	Label UC Ecosmart 4-10L	1
5	1400611	Connector mini fit 4 way socket	1
6	1502088	Thermal Switch 90deg, M4 Stud Mount	1
7	1800314	Gasket inner UC4	1
8	1502089	Thermal Switch Mount Brass	1
9	1600357K	PCB 357 Spares kit	1
10	1700310	Leg 50mm Nylon 22mm Diameter	4

*NOTE :
ON MACHINES 1000740 (ECOBOILER UC4)
USE PCB: p/n: 1600349 PCB Display
Ecoboiler 10L

**NOTE :
ON MACHINES 1000740 USE LABEL:
p/n: 1900674 Label UC Ecoboiler 4-10L

MODEL SHOWN IS 1000750 (ECOSMART UC4)



marco

POURING PERFECTION

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS
TOLERANCES: LINEAR: +/-0.2mm

DESCRIPTION: EXPLODED INTERNAL 1000740 1000750

DWG NO.: UC04-020A

MATERIAL: N/A

DRAWN BY: JL

22-05-17

APPROVED BY: JJ

18-08-11

REVISION: B

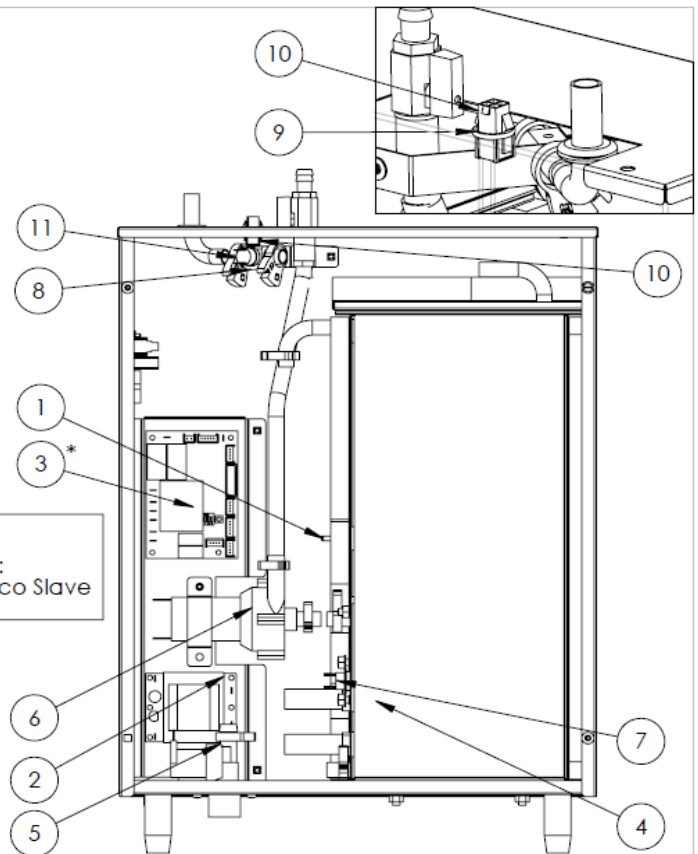
CO:

356

SCALE:1:5

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2300463	PROBE COMPLETE ASSEMBLY 40mm	2
2	1600366	24V DC PUMP SUPPLY	1
3	1600345	ECO MAIN PCB	1
4	1500950	ELEMENT 2.4kW 230V	1
5	1502190	VALVE INLET SOLENOID 240V 3/4"	1
6	1501542	PUMP MULLER 24V DC	1
7	1502087	THERMAL SWITCH 130 DEG	1
8	1502089	Thermal Switch Mount Brass	1
9	1800780	O RING FOR PROBE	1
10	1400611	Connector mini fit 4 way socket	1
11	1502088	Thermal Switch 90deg, M4 Stud Mount	1

*NOTE:
On 1000750 USE PCB:
P/N: 1600354 P.C.B Eco Slave



marco

POURING PERFECTION

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS
TOLERANCES: LINEAR: +/-0.2mm

DESCRIPTION: EXPLODED INTERNAL 1000740 1000750

DWG NO.: UC04-021A

MATERIAL: N/A

DRAWN BY: JL

2/03/17

APPROVED BY:

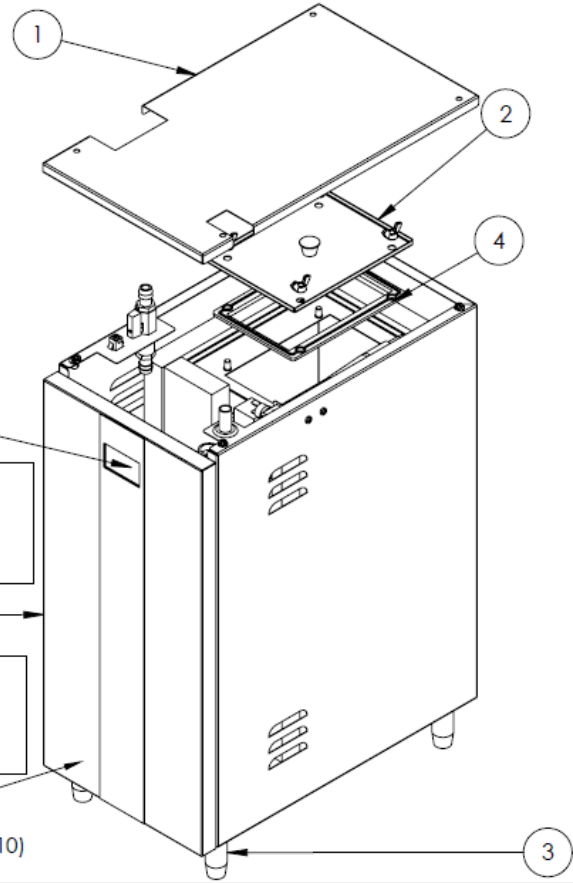
REVISION: A

CO:

343

SCALE:1:4

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2300388	LID 1000741 1000742 1000751 1000752	1
2	2300384	Lid Inner Ecoboiler	1
3	1700310	Leg 50mm Nylon 22mm Diameter	4
4	1800306	GASKET INNER ECOBOILER	1
5	1600357K	PCB 357 Spares kit	1
6	1801811	Service Panel 1000751 1000752	1



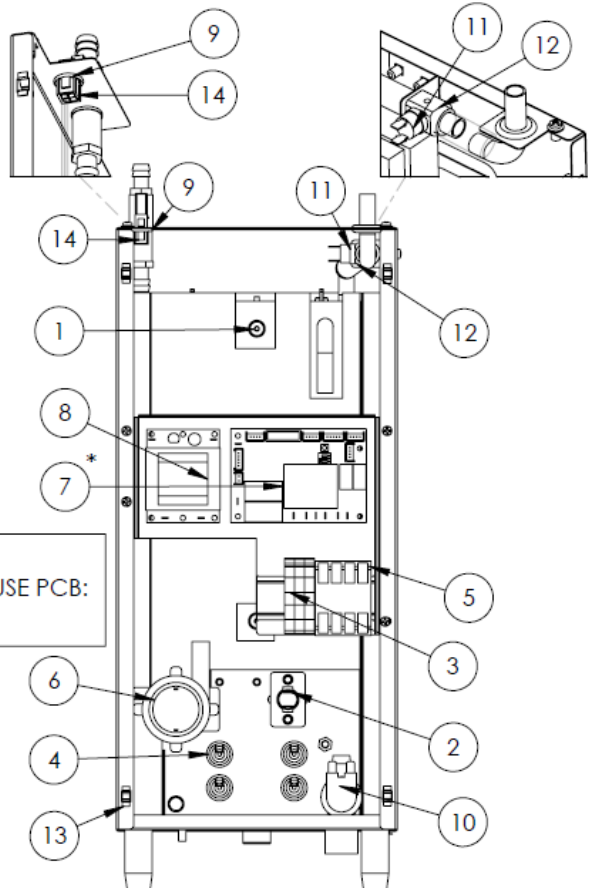
*NOTE :
ON MACHINES 1000741 AND 1000742 USE PCB:
p/n: 1600349 PCB Display Ecoboiler 10L

**NOTE :
ON MACHINES 1000741 AND 1000742 USE :
1801810 Service Panel 1000741 1000742

MODEL SHOWN IS 1000751 (ECOSMART UC10)

<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES: LINEAR: +/-0.2mm</p>	DESCRIPTION:	External exploded 1000741 1000742 1000751 1000752	DRAWN BY:	JL	22-05-17	
	DWG NO.:	UC10-020A	APPROVED BY:	NMc	17-08-11	
	MATERIAL:	N/A	REVISION:	b	CO:	356
					SCALE:	1:5

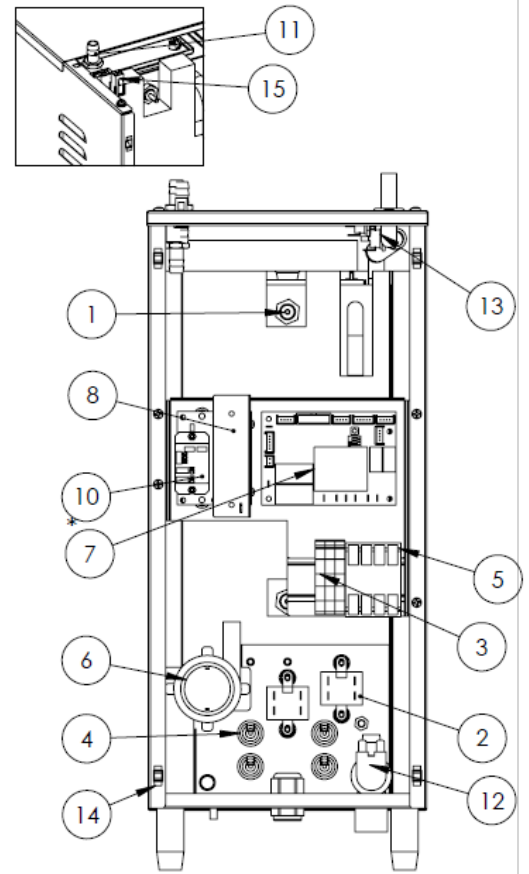
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	2301463	PROBE COMPLETE ASSEMBLY 40mm	3
2	1502087	THERMAL SWITCH 130 DEG	1
3	1502000	TERMINAL 6mm	3
4	1500985	ELEMENT 2.8kW 230V	2
5	1500840	CONTACTOR B&J 240V AC	1
6	1501542	PUMP MULLER 24V DC	1
7	1600345	ECO MAIN PCB	1
8	1600366	24V DC PUMP SUPPLY	1
9	1800780	O RING FOR PROBE	1
10	1502192	Valve Inlet 240V - 2Lmin NSF	1
11	1502088	Thermal Switch 90deg, M4 Stud Mount	1
12	1502089	Thermal Switch Mount Brass	1
13	1402146	CLIP LATCH SELF MOUNT	4
14	1400611	Connector mini fit 4 way socket	1



*NOTE:
On MACHINES 1000751 AND 1000752 USE PCB:
P/N: 1600354 P.C.B Eco Slave

<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES: LINEAR: +/-0.2mm</p>	DESCRIPTION:	Internal exploded 1000741 1000742 1000751 1000752	DRAWN BY:	FMc	18-08-11	
	DWG NO.:	UC10-021A	APPROVED BY:	NMc	18-08-11	
	MATERIAL:	N/A	REVISION:	a	CO:	575
					SCALE:	1:5

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	2300463	Probe Assembly (40mm Tab)	3
2	1502075	Thermal Switch Dual Pole 125Deg	2
3	1502000	TERMINAL 6mm	3
4	1500985	ELEMENT 2.8kW 230V	2
5	1500840	CONTACTOR B&J 240V AC	1
6	1501542	PUMP MULLER 24V DC	1
7	1600345	P.C.B. Ecoboiler Control	1
8	1601000	Power Supply 24V Dc	1
9	1600491	Relay 220V 40A	1
10	1600366K	24V DC Pump Supply Retrofit Kit (for machines before serial number 0617XXXX)	1
11	1402160	Tailpiece Hose 1/4" Bsp X 12mm	2
12	1502190	VALVE INLET SOLENOID 240V 3/4"	1
13	1502088	Thermal Switch 90deg, M4 Stud Mount	2
14	1402146	CLIP LATCH SELF MOUNT	4
15	1400611	Connector mini fit 4 way socket	1



*NOTE:
On MACHINES 1000751 AND 1000752 USE PCB:
P/N: 1600354 P.C.B Eco Slave

marco <small>POURING PERFECTION</small> <small>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS TOLERANCES: LINEAR: +/-0.2mm</small>	DESCRIPTION:	Internal exploded 1000741 1000742 1000751 1000752	DRAWN BY:	BB	16-06-17
	DWG NO.:	UC10-021A	APPROVED BY:	PT	16-06-17
	MATERIAL:	N/A	REVISION:	c	CO: 344
					SCALE:1:5

