INSTRUCTION MANUAL

AMS WATER MANAGEMENT SYSTEM

(AMS-WMS 230V)

WARNING

Asbestos exposure can cause severe and fatal diseases. Approved Code of Practices should be applied at all times when using this equipment to ensure safe working conditions.

Manufactured by:

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About this Manual:

The purpose of this manual is to enclose all relevant information and data to this particular product and related uses. This manual is to be utilised by the user of this product to ensure correct and safe methods are used during related operations.

Table of Contents

1. Description & Data

1.1 General Description

The fundamental design emphasis of the AMS range of Water Management Systems, specifically the 110 volt and 230 volt units is to provide robust, yet lightweight modules which produces high water flow rates from a compact unit. In particular, the AMS 230 volt Water Management System produces 4.5 Gallons per Minute nominal flow rate, both to and from the shower head of a Decontamination Facility, with 25 and 5 micron filtration. The unit is compact and mobile and can be easily handled by one person. Castors fitted allows unit to be pushed and will pass through standard doorways.

The water management system case is constructed from durable polypropylene, reinforced with welded internal ribs, where necessary.

The Unit contains the following main components:

- 140 litre Tank
- Variable Temperature Thermostat
- Two Filter Pods (double filtration level)
- Waste Water Pump
- Castors
- Industrial Immersion Heating Element
- Large, Easy Access Tank Lid
- Shower Supply Pump
- Power Cord with Plug

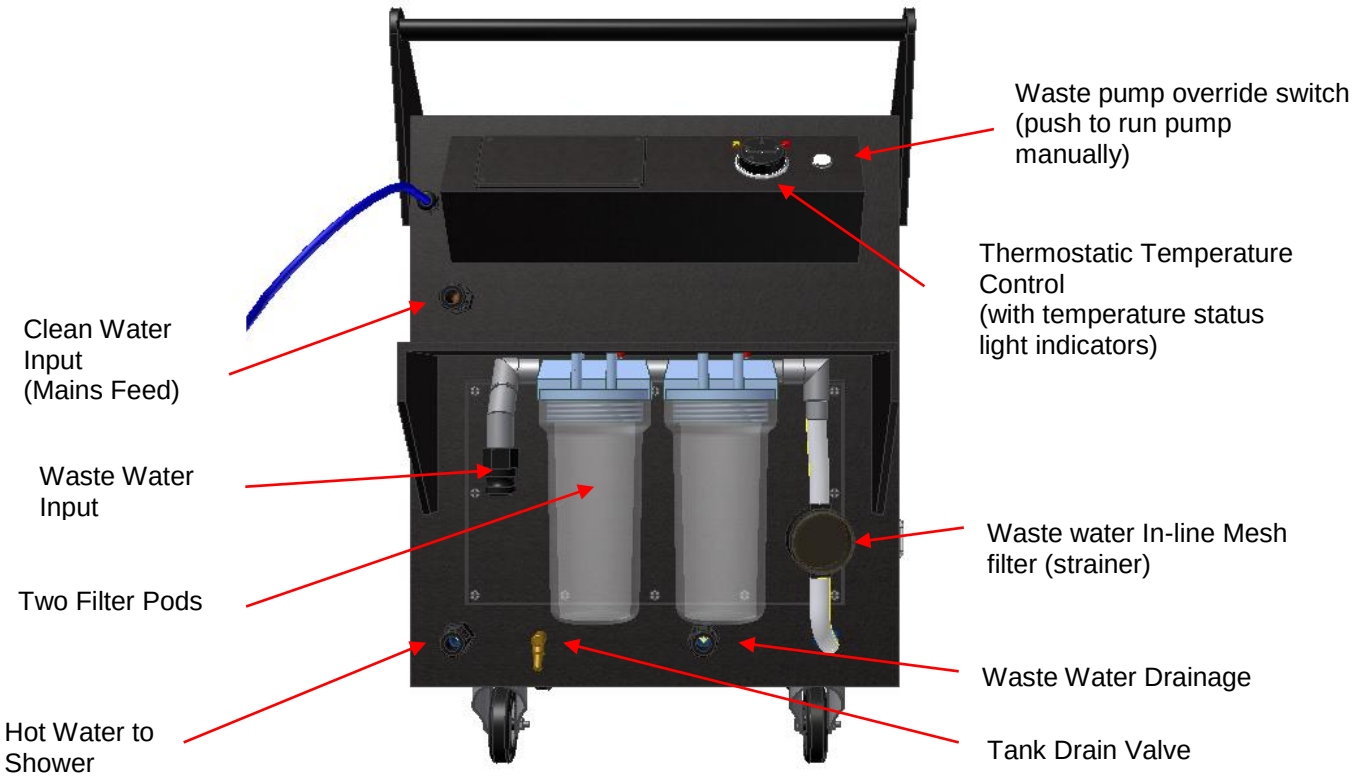


Figure 1.1 – Unit Controls & Components

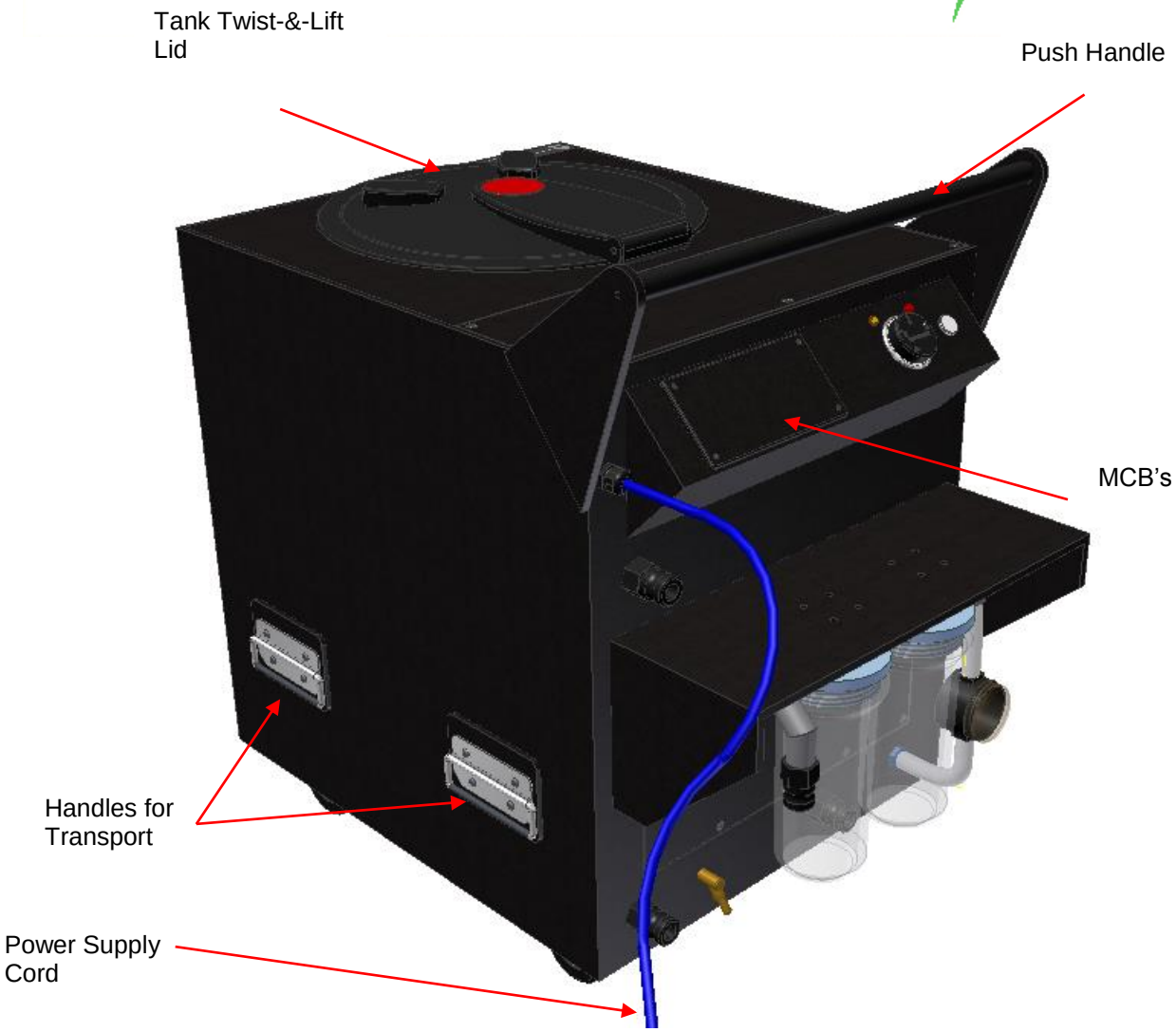


Figure 1.2 – Handling Components

Figure 1.3 – Unit Back

1.2 Technical Data

AMS 230V Water Management		
Main Electrical Supply		
	Supply Voltage	230v @ 50Hz
	Current (max)	10A
	Protection	MCB's (circuit breakers)
Water Heater Element (electric):		
	Supply Voltage	230v @ 50Hz
	Current (max)	8.3A
	Output	2000W
	Controls	Thermostatic Control
	Protection	Secondary Thermostat (pre-set) within heating element body
		16 amp MCB
Shower Supply Pump:		
	Supply Voltage	230v @ 50Hz
	Current (max)	0.85A
	Output	200W
	Protection	3amp MCB
Waste Water Supply Pump:		
	Supply Voltage	230v @ 50Hz
	Current (max)	0.85A
	Output	200W
	Protection	3 amp MCB
Dimensions:		
	Height	950 mm
	Width	680 mm
	Length	920 mm
	Weight - EMPTY	45 kg
	Tank Volume	140 litres

2. Installation

2.1 Power Requirements

The 230V Waste Management Systems are supplied with a 5 metre fixed lead and plug which must be connected to an appropriate power supply during use.

2.2 Positioning & Connection of Unit

The Water Management System should be mounted as closely to the Decontamination facility as possible and be connected as follow:

(Refer to figure 1.1 & 1.2 to see connection illustrations)

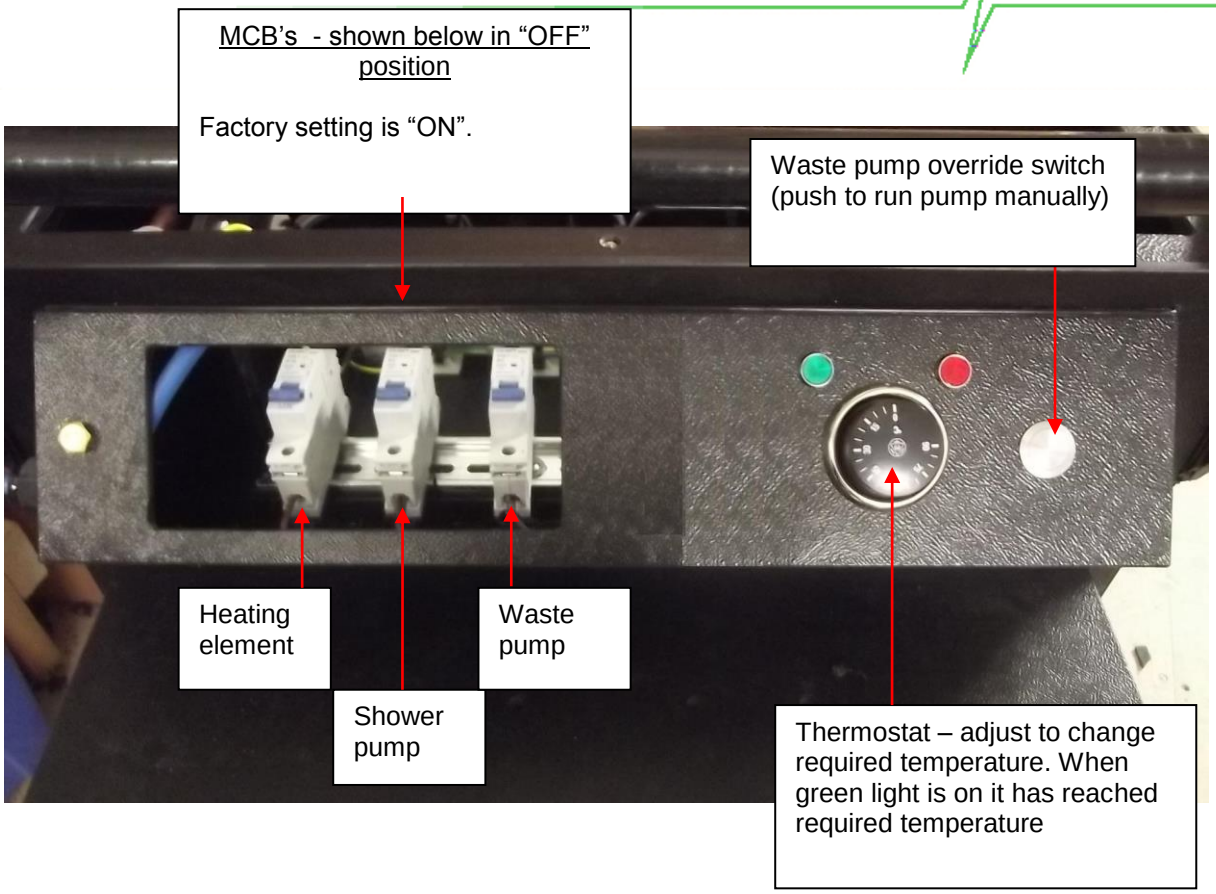
- Waste pipe from the shower tray connected to waste water input point
- Ensure Waste Water filter link are connected (present) as per illustration
- Hot water supply hose connected to shower unit.
- Mains water supply hose connected to the mains inlet on system unit.
- Waste discharge connected to appropriate drainage point.
- The power supply cord should be run in a manner that does not create a tripping hazard.
- Considerations should be made to which location the unit will be installed.
- The unit should be positioned on a sturdy base to avoid unwanted movement and brakes on castors should be enabled.

3. Operation

3.1 Preparatory

THE WATER MANAGEMENT SYSTEM SHOULD BE OPERATED UNDER THE SUPERVISION OF COMPETENT AND TRAINED PERSONNEL.

- Ensure that the unit is correctly installed according to Section 2. The system will be delivered with the requisite hoses to be installed, complete with cam lock type hose connections where applicable.
- Ensure that the Temperature control dial is turned to “0”, prior to connection to the power supply.
- Ensure that the Power Supply to the unit has an RCD protection facility fitted.



3.2 Start up

- After connecting the necessary hoses turn the Water Management System on at the isolator, ensuring that the RCD protection is enabled.
- Ensure that the shower valve within the decontamination facility is turned off.
- Turn the Temperature control dial to the required setting – Note that there is an inbuilt high limit setting on this heater to limit the temperature to a maximum of approximately 45 deg C.
- Allow the temperature of the water in the tank to reach the required temperature, when this has been achieved the Red light will be Extinguished, leaving the Green light illuminated.
- The pumps operate automatically; therefore to start the shower delivery pump you will need to turn the shower valve on. This will operate the inbuilt pressure switch within the shower supply pump, which will in turn start this pump.
- By starting the shower pump the waste water pump is then energised. This pump shall continue to run while the shower pump is active. When the shower valve is closed the pressure switch will deactivate the shower pump.
- The "over-run" facility of the waste pump is achieved by means of a run-on timer located within the unit. This is set to allow the waste pump to run for a set period after the shower pump has stopped.

- Always use clean uncontaminated potable water, even if filling the tank using buckets, where mains water supplies may be unavailable.

3.3 Normal Running Checks

- Periodically check the Water Management System and ensure that any RCD protection is operational
- Periodically run the complete system to ensure that the water temperature rises and that both pumps operate satisfactorily.

3.4 Shut Down

Switch off the Water Management System at the main isolator and turn the temperature control dial to **zero "0"**. Never leave water in the storage tank, always completely drain the tank between uses to ensure that the risk of Legionella Bacteria build up is reduced.

4. Safety Procedures

4.1 General

- Power cables should be routed so that they do not create a tripping hazard.
- Whilst not in use the WMS must be emptied.
- Keep lid closed to prevent tank contamination.

4.2 Transportation

- Whilst in transit, it is imperative that the unit is secured to minimise movement. This can be partially achieved by locking the braked castors, but further securing will be required.
- Care is to be taken to ensure safe handling whilst inserting and removing the unit from the vehicle.

4.3 Handling

NB! The WMS must not be handled whilst in operation.

- The WMS must be handled with care and attention. Although of robust build, any significant trauma could cause failure in operation.

- Care and attention must also be taken to ensure that the person(s) handling or operating the unit are doing so in a competent way as not to cause injury to themselves.

4.4 Storing

The unit must be stored in a place, avoiding:

- Dampness, Extreme Temperatures, Hazard to Personnel etc.

- This list is not exhaustive and common sense must prevail.

5. Maintenance

5.1 Preventative Maintenance

- Keep the unit clean and dry.
- Periodically check the condition of the power lead(s) and keep in good condition.

5.2 Replacing Filters

- Isolate the power to the unit and disconnect all hoses
- Carefully undo and remove the filter carrier, from the assembly.
- Remove the Water filters from the aperture and seal it in an approved asbestos waste bag.
- Be very careful in this operation not to damage or lose the “O” rings of the filter assemblies.
- All type of filter changing is required to be done under controlled conditions.

5.3 Fault Finding

Problem	Fault/Action
Unit doesn't run	Sufficient water must be in tank to activate system via float switch. Check MCB's are "ON". Check power supply, if OK, possible faulty pump or electrical problem. Return unit for repair
Pumps do not run	Check MCB's is "ON" & Power Supply is ok
Leak on Filter Pod	Check O-Ring on Filter Assembly
Water does not heat up	Check that the temperature control dial is set correctly. If so check that the Reset switch on the Heater element has not tripped, if it has reset this by depressing. Check that MCB is "ON"
Excess water in shower tray after use	The "run on" timer for the waste water pump needs to be set for a longer period so that it runs long enough to drain the tray

6. Return Procedures

THE UNIT SHOULD BE EXAMINED, SERVICED & TESTED ONCE EVERY SIX MONTHS IN ACCORDANCE WITH CURRENT LEGISLATION AND MANUFACTURERS INSTRUCTIONS BY AN APPROVED SERVICE CENTRE.

6.1 Normal Return for Service

- Remove the Water filters and dispose of it as required by law.
- Clean the Filter Unit carefully with an approved vacuum cleaner.
- Replace the Water filters with clean ones.

6.2 Return after Hazardous Contamination

- As detailed above (6.1), but ensure that the unit is wrapped in polythene and sealed.

7. Spare & Accessories

7.1 Recommended Spares and Service Components

- Filter Assemblies

- 10” – 250mm Disposable Water Filters, rated at 5 micron and 25 micron

- Spanner for removal of filters
  - Type SW2

7.2 Optional Extras

The basic AMS Water Management System comes with the following hoses:

- 15mm Mains Water connection with Cam lock fitted to one end
- 22mm Shower Supply hose with Cam locks fitted
- 22mm Shower Waste hose with Cam locks fitted
- 22mm Unit waste discharge hose with Cam lock fitted to one end.

8. Technical System Information

8.1 Pumps

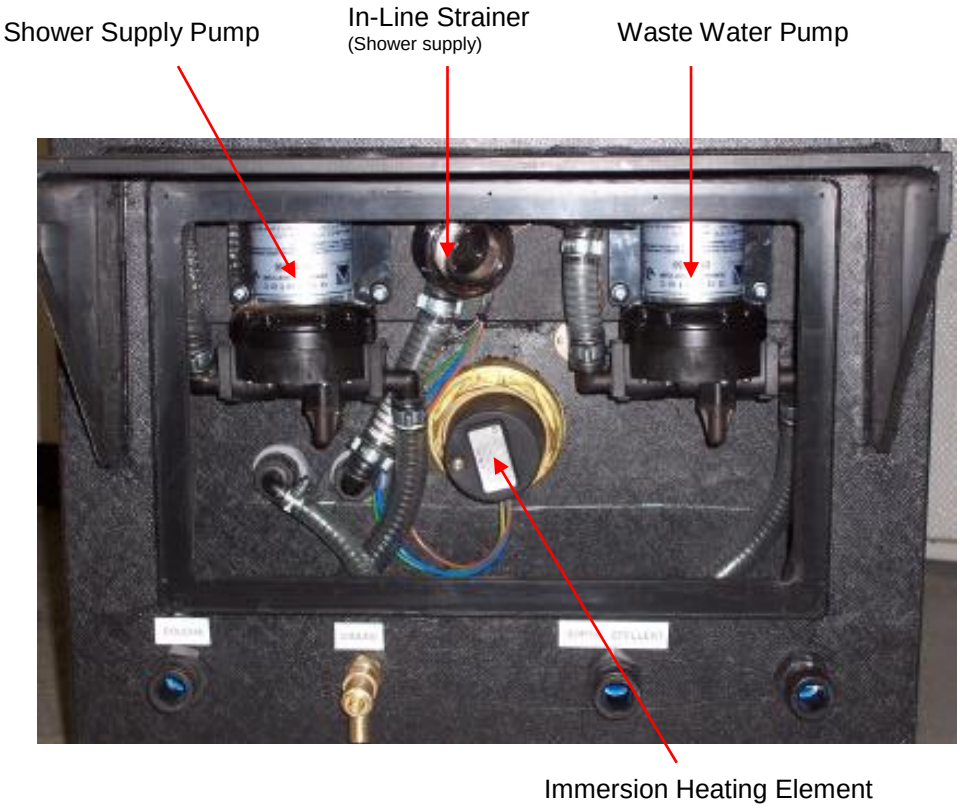


Figure 8.1 – Pumps & Heating Element

8.2 Fuses

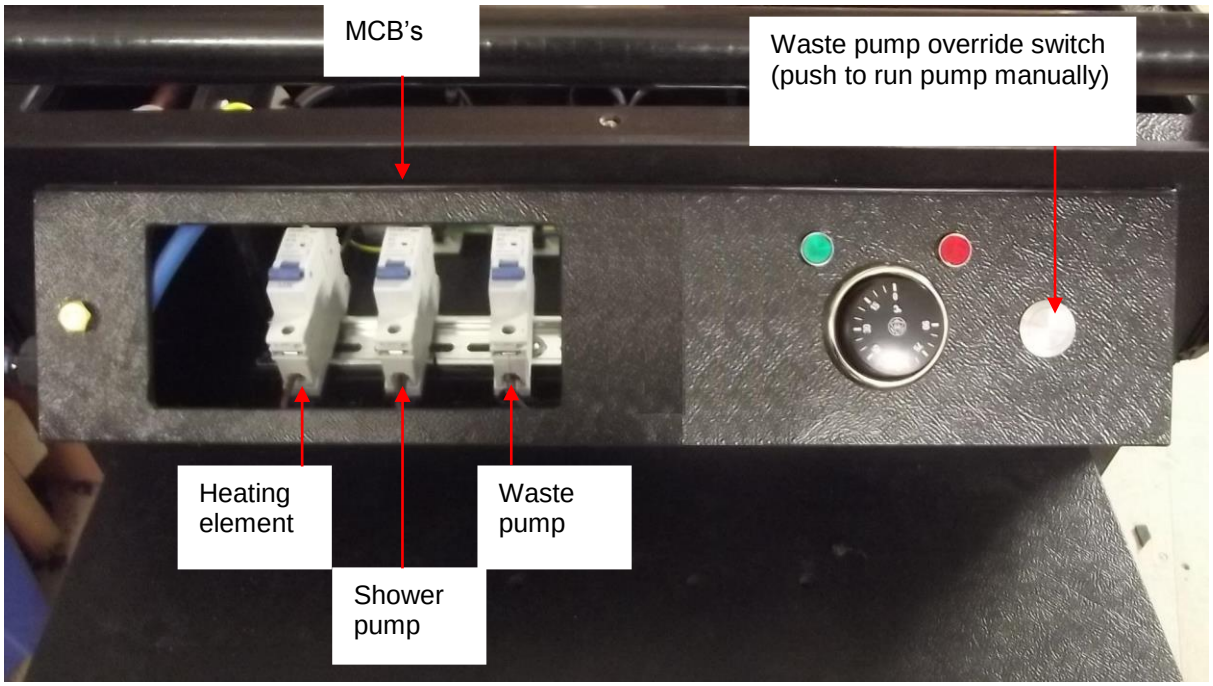


Figure 8.2 – Fuse Box

8.3 Wiring Diagram

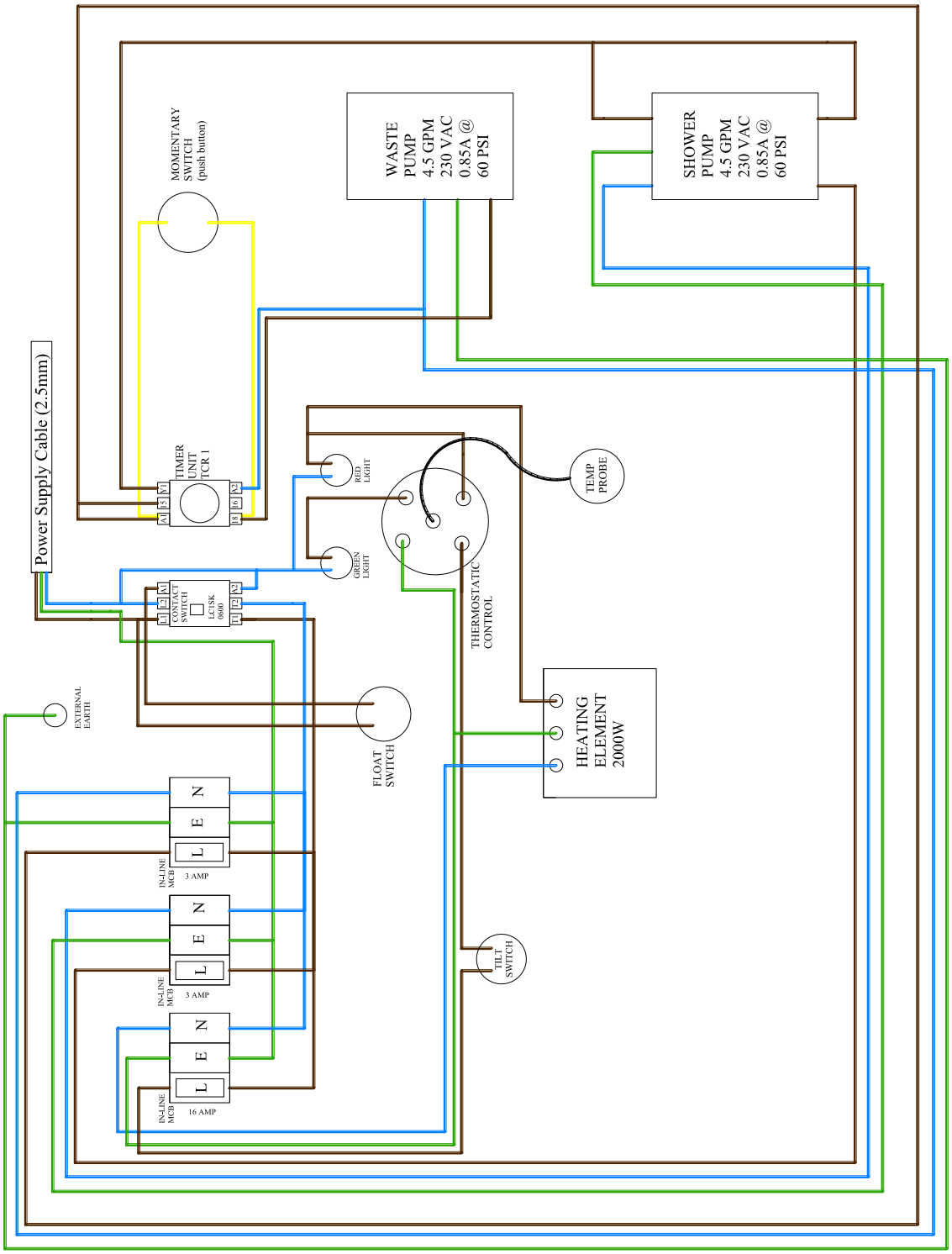


Figure 8.3 – 240V Wiring Diagram

8.4 Tank Components