



The TEAL Handeman Xtra

12 and 24 volt vehicle hand wash units: installation and operating instructions, 2018

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The Handeman Xtra

12V/220W (red label), 24V/250W (blue label)
and 12V/90W (purple label)

Specifications

Product	Handeman 12V (red label)	Handeman 24V (Blue label)	Handeman 12V (Purple label)
Height	370 mm	370 mm	370 mm
Width	310 mm	310 mm	310 mm
D (closed)	220 mm	220 mm	220 mm
D (open)	370 mm	370 mm	370 mm
Litres	3.3	3.3	3.3
Fuse	30 amp	20 amp	15 amp
No. of 10 second hand washes	15	15	15
Weight (empty)	3 kg	3 kg	3 kg
Weight (full)	6.3 kg	6.3 kg	6.3 kg

12V installation details: Euro6 compliant vehicles: Smart Charging.

Your Teal sink will have 3 wires connected.

- **12V + Red.** To vehicle battery or auxiliary battery with an output of over 12.7 volts.
- **12V - Black.** To vehicle battery negative.
- **White signal wire (W.W.).** This is to be connected to the ignition circuit. The most common connection is at the ignition fuse, though alternative connection points may be used.

When the W.W. receives a positive signal, the sink has the ability to switch on. The unit will operate when 12.7 volts are sensed from the battery source and heat the water to 40° C.

Thereafter, the thermostat will control the heating cycle.

The unit will switch off when less than 12.1 volts are detected, thus preserving the battery's integrity.

Finally, when the W.W.'s signal is dropped, the unit cannot operate.

This is a failsafe situation, indicating that the vehicles engine is switched off.

Please note: ensure that this feed has no other outputs attached, such as lights or alarms. That will hold the signal high, thus negating the failsafe mode.

12V installation details: Non Euro6 Vehicles, without Smart Charging.

Your Teal sink will have 3 wires connected.

- **12V + Red.** To vehicle battery or auxiliary battery with an output of over 13.8 volts.
- **12V - Black.** To vehicle battery negative.
- **White Wire (W.W.).** Connect to red wire.

The unit will operate upon sensing a voltage above 13.8 volts.

The vehicle's alternator will be constantly in circuit during the vehicle's active operation.

When the vehicle's voltage drops below 12.8 volts, (when the vehicle's engine is switched off), the Teal sink will cease operation.

12 volt auxiliary battery

For operation using an auxiliary leisure battery where the voltage output is at a static +/-12 volts.

Non voltage sensing.

This battery will be charged by a generator / battery charger or topped up by being connected to vehicle circuit.

The correct Teal sink designation is N.V.

All units with this designation will have 2 wires only.

- **12V + Red.** To positive terminal.
- **12V - Black.** To negative terminal.

Once connected this unit will operate at the voltage it receives until this voltage drops below 11.5 volts.

To control this unit the installing auto electrician must wire the positive feed (*red*) via a switch or relay.

24 volt vehicles with 2 wire connection system

- Red wire to battery + using 4mm (minimum 30 amp rated wire)
- Black wire to battery – or ground (chassis)
- In-line fuse – must be fitted to the red + ve wire
- Wiring should be kept as short a practically possible to prevent voltage drop/loss.

Standard voltage sensing software will operate.

Unit switches on at 25.6 volts and cuts out at 25.1 volts.

Handeman Xtra 12 and 24 volt vehicle wash units: *operating instructions*

Water temperature

If the vehicle engine is running, the water temperature will reach 43° C – the unit will then cut out.

When the water temperature drops to 40° C, the unit will cut back in to heat the water again. The cycle will be repeated whilst the engine is running.

NB: In freezing temperatures, the unit should be drained overnight and/or at weekends. This will prevent damage to your unit.

Do not fill units above the inner baffle/water tank.

Mounting instructions

Using the template provided, the HandeMan Xtra should be fitted into an area that allows clearance for filling, washing and bowl/waste removal.

Cleaning instructions

Daily

Empty the bowl into a foul water drain. Rinse the bowl with clean water. The bowl is removable on the Handeman Xtra.

Monthly

Empty as above. Wipe all surfaces with a mild detergent. Flush waste bowl with mild detergent.

IMPORTANT

TEAL recommends cleaning and sterilising the unit regularly with Milton or a similar product is to minimise any possible build-up of water borne bacteria such as Pseudomonas.

Pseudomonas can create the environment required for other bacteria such as Legionella.

LED fault indicator

All TEAL hand wash units are fitted with an LED fault indicator which remains on at **ALL** times (this draws 10Ma).

The indicator is located at the front of the unit.

If the unit develops a fault there will be a series of flashes:

- **Single flash = no water.**
Fill with clean water, remove the fuse and replace after 60 seconds, or cycle the vehicle ignition. The unit will then reset
- **Double flash = PCB/thermistor issue**
Return to the manufacturer
- **Triple flash = over voltage**
Check the wiring and battery voltage
- **Quadruple flash = low vehicle battery**
Check the battery.

Warranty terms

2 years on a return to manufacturer basis.

NB - the water is not suitable for drinking



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