



Handeman Xtra®

With integral waste water tank

Installation and Operating Guide

Introduction

HANDEMAN XTRA® is a self contained 'go anywhere' hot water hand wash unit designed for commercial motor vehicles. It is fully automatic in operation and uses advanced electronic control. It is built to meet the needs of occupational Health and Safety requirements.

Standard Voltage sensing Handeman Xtra®

- Conforms to EC Declaration of Conformity E11 Approval No 10R-055528
- The lift out waste-safe® water tray combines water catchment with integral 3 litre waste water storage.
- High Impact fully moulded polyethylene for great strength
- Electronic control with tell tale indicator means:
 - No separate external switch required.
 - Accurate temperatures of 42°C +/- 2°C
 - 'No Water' safety lockout
 - Battery safe with voltage sensing
 - Simple 2 wire installation
 - Complete with correct fuse and fuse holder.
- More than 15 ten second hot washes per filling
- Wash under running hot water
- 3.3 litres water tank; 3 litres useable
- Hygienic finger tip operated tap
- Installation kit
- Versions for both 12 and 24 Volt power supply.
HMX12/HMX24
- Electrical integrity protected with inherent thermal fuse when the vehicle is turned off, the battery state is quiescent at 12V.
- When switched on, the alternator will raise the battery output to 14-14.5V.
- The software in the Handeman Xtra® will see this rise and switch the unit on when 14 volts is detected. The Handeman will then continue to work until the vehicle is switched off and the unit will see the battery output drop back to 12V, cutting out at 12.8V.
- The battery will not be therefore be drained by the Handeman Xtra®.

Standard HMX24

- When the vehicle is turned off the battery state is quiescent at 24V.
- When switched on, the alternator will raise the battery output to 27V.
- The software in the Handeman Xtra® will see this rise and switch the unit on when 27 volts is detected. The Handeman Xtra® will then continue to work until the vehicle is switched off and the unit will see the battery output drop back to 24V and will cut out at 25.5 V.
- The battery will not be therefore be drained by the Handeman Xtra®

****Non-voltage sensing**

The *non-voltage sensing* Handeman unit model number is HMX12NV.

With the advent on many modern vans of Smart Regenerative Charging technology, the alternator will have the ability to see the state of battery charge and decide to switch on and off during the journey – thus saving fuel.

The consequence of this, is to potentially keep switching the Handeman Xtra® on and off during the journey, which reduces the heating time available.

To overcome this issue, Teal have introduced *non-voltage sensing* version. The Handeman Xtra® will, when connected to the vehicle's battery, switch on and keep running, which could potentially run the battery flat.

Therefore a switch or relay must be introduced between the battery and the Handeman, enabling it to be switched off either manually or automatically.

The choice of switches or relays is down to customer preference

Mounting your HANDEMAN XTRA®

Suitable for both external and internal use, the unit should be mounted on a suitable vertical surface with sufficient clearance to allow full use.

1. Use the four bolts holes provided.
2. Remove the waste-safe® water tray by lifting vertically and then pulling towards you (see attached drawing).

Electrical Connections

Check that voltage of the vehicle is correct for the unit supplied. Follow the approved electrical practice when installing the unit.

Before installation, isolate the –ve earth battery terminal.

All wiring must be **4mm² Ø 56/0.3 rated 40 amps** and protected from sources of abrasion and heat. The use of plastic conduit BS6231 and Tri rated cable is recommended.

* **Red wire:** **To +ive battery terminal** using the 30 amps fuse for 12V or the 15-amp fuse for 24V as supplied.

* **Black wire:** **To -ive terminal** or to a substantial chassis earth point ensuring a contact.

Check that all connections are secure.

Important:

Keep the wiring as short as possible to prevent voltage drop for this may affect the operation of the unit.

Testing

After replacing the Waste-Safe®, fill the unit with 3.3 litres of clean water. Do not fill above the fill line.

Make the connection to the battery and the RED Led tell-tale will light showing that the unit is connected correctly and alive.

Run the engine and when the battery is fully charged, the water heater will operate. In about 30 minutes the water will be up to temperature and the heater will automatically cut out.

Refit the waste water tray.

Hot water may be drawn off when the waste water tray is dropped down.

The waste water should be removed and emptied when water appears in the drain holes.

Please note: In freezing weather, drain the unit over night and at the weekends.

No Water

In the event of '**NO WATER**' the safety Lockout will operate and the red tell tale will flash.

After refilling with water the unit must be reset.

Remove the fuse and after 30 seconds, replace the fuse. The red tell-tale will show a continuous light to indicate that the unit has reset

Failure to comply with these fitting instructions will invalidate the manufacturers warranty and may damage the unit and the vehicle.

Cleaning Instructions

Daily: Empty the waste water tray into a foul water drain and rinse with clean water.

Monthly: Empty your HANDEMAN XTRA® and flush through with clean water. Wipe all surfaces with a mild detergent. Flush out the waste water tray with a mild detergent and rinse with clean water. Note the spray nozzle is removable for cleaning.

HANDEMAN XTRA® Technical Specification

| | | |
|--------------------------|-------------------------------------|--|
| Dimensions; | Width | 310 mm |
| | Height | 370 mm |
| | Depth | 220 mm with waste water tray closed 370 mm with waste water tray open |
| Voltage: HMX12: 12V 220W | | 18 A @ 14 VDC 30 amp strip link fuse |
| HMX24: 24V 250W | | 10A @ 27 VDC 15 amp fuse |
| HMXLW: 12V 90W | | 8A @ 14 VDC Accessory socket plug |
| Water Capacity | 3.3 Litres | 3 litres useable |
| Water temperature | 42°C +/- 2°C. | |
| Heating time | 30 minutes approx from 12°C to 42°C | |
| Weight | 4 Kg empty 7 kg full | |

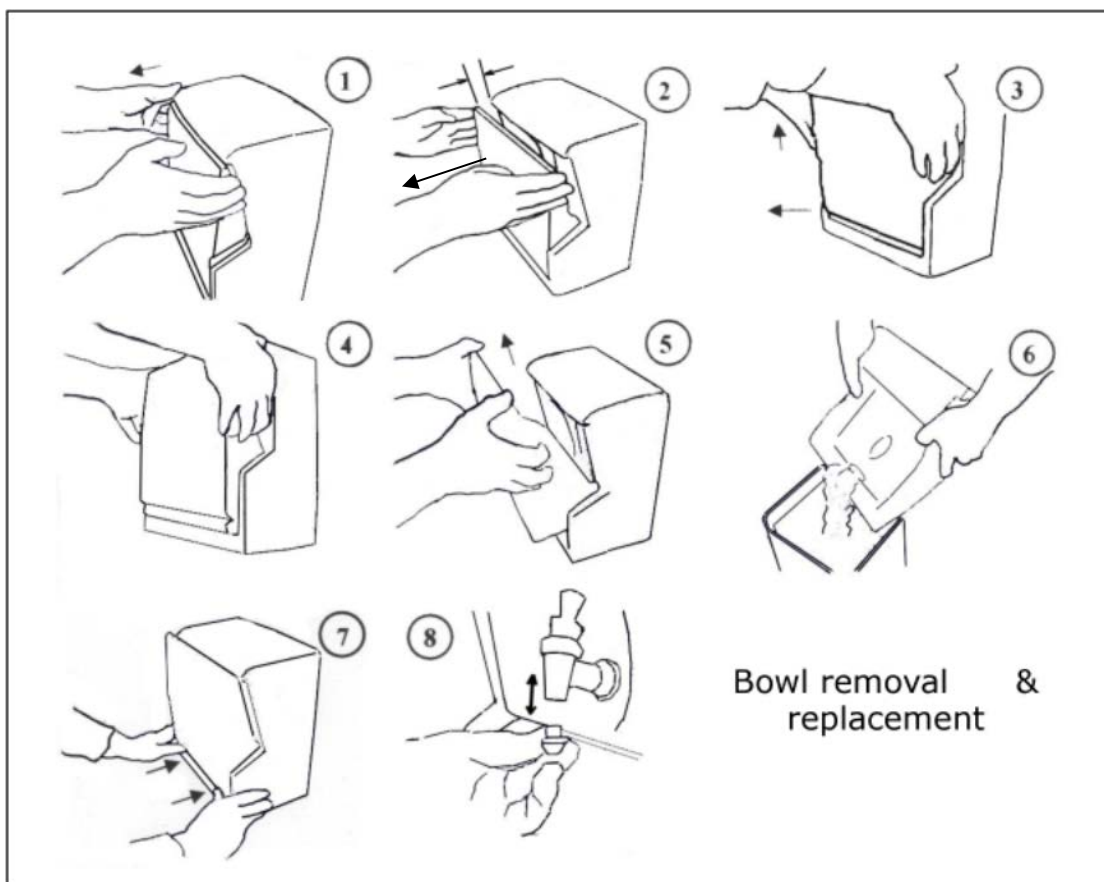
Water Not Suitable for Drinking

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REMOVING AND EMPTYING THE HANDEMAN XTRA® WASTE WATER TRAY

1. GRIP BOTH SIDES OF THE BOWL AT THE TOP
2. PULL OPEN TO LEAVE A GAP OF 1 INCH
3. LIFT GENTLY UPWARDS FROM THE BOWL SIDES
4. SWING THE BOTTOM OF THE BOWL OUT
5. ONCE THE BOWL IS FREE LIFT OUT
6. TIP FROM THE SLOT INTO A FOWL WATER DRAIN
7. TO REPLACE SIT THE BOWL ON THE LOWER FRONT RAIL AND PUSH AT THE BASE ~ SNAP TOP CLOSED
8. TAP NOZZLE CAN BE REMOVED FOR CLEANING



Fitting optional soap and towel holder

