FaceLift® Osmo Compact Reverse Osmosis & Deionised Owner's Manual

Models Covered
525 (Single & Dual Operator) | **725** (Dual Operator)
Manual Reels | Powered Reels
Revision 1
(English)



FaceLift®

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525 & 725 Self Install

Critical Structural Mounting & Safety



Professional Installation Strongly Recommended

Window Cleaning Warehouse strongly recommends professional installation at our facility or by an approved provider. Professional installation ensures compliance with safety standards and provides a certified installation certificate, inspected by a NEBOSH-certified inspector.

CRITICAL SAFETY WARNING: Tank Security

The system must be securely hard-bolted to the vehicle. The use of ratchet straps, bungee cords, or any non-permanent fixing method is **strictly prohibited**. These methods are insufficient for the load and present an extreme risk of fatality in the event of a collision. **Window Cleaning Warehouse accepts no liability for injury, loss of life, or damage resulting from the use of unapproved securing methods.**

Weight Specifications

Ensure your vehicle is rated to support the following loads. The user assumes all responsibility for vehicle suitability.

- **525 Series (Single & Dual):** Dry weight: ~150.0kg | Wet weight: ~650.0kg
- **725 Series (Dual Operator):** Dry weight: ~205.6kg | Wet weight: ~905.6kg

Note: Wet weight estimates are based on maximum tank capacity.

Self-Installation Notice

Self-installation is permitted only for individuals with certified mechanical expertise. We provide a securing frame and the following hardware: **6 securing plates, 6 long bolts, 6 washers, and 6 nuts.**

Deionised Systems: Additional Components

The 525 and 725 Series Deionised Systems include resin exchange bottles that are not pre-mounted to the unit. We supply sufficient hosepipe for plumbing; however, the installer is responsible for identifying and securing the bottles in a suitable location within the vehicle.
Depending on your specific setup, the following supplementary items are included with each DI system:

- **Resin exchange bottle** (x2 dual operator)
- **Resin exchange bottle divot** (x2 dual operator)
- **Divot mounting hardware** (x2 dual operator)
- **Hosepipe** for bottle connection

If you are unsure at any stage, **STOP** and contact us to arrange a professional installation.

525 & 725 Product Description & Dimensions

System Overview & Specifications

The FaceLift® Osmo Compact line represents a high-capacity series of van-mounted window cleaning systems. This owner's manual specifically details the 525 and 725 four-stage reverse osmosis & deionisation (RO & DI) van-mounted configurations. Within this lineup, the 525 series features a water capacity of approximately ~500 litres*, whereas the 725 series holds roughly ~700 litres*. These RO & DI setups are designed to purify tap water exceeding >300 PPM TDS. Water passes through an inline prefiltration system prior to storage in the main holding tank, followed by final filtration through ion-exchange resin to achieve ~0 PPM purity. Depending on the selected configuration, the system comes equipped for either single or dual operators and includes either manual or electronic hose reels.

Specification / Model	525 Single Operator (Manual / Powered)	525 Dual Operator (Manual / Powered)	725 Dual Operator (Manual / Powered)
Tank Series	525	525	725
Pump & Controllers	1× Shurflo / 1× V16	2× Shurflo / 2× V16	2× Shurflo / 2× V16
Dry Weight (Manual / Powered)	~143.4kg / ~150.0kg	~155.8kg / ~169.0kg	~192.3kg / ~205.6kg
Wet Weight	~643.4kg / ~650.0kg	~655.8kg / ~669.0kg	~892.3 kg / ~905.6kg
Dimensions (L x W x H) Manual	159.0cm x 136.8cm x 110.3cm	159.0cm x 136.8cm x 110.3cm	159.0cm x 136.8cm x 123.1cm
Dimensions (L x W x H) Powered	159.0cm x 136.8cm x 115.4cm	159.0cm x 136.8cm x 115.4cm	159.0cm x 136.8cm x 128.1cm

Operators must verify vehicle dimensions and payload capacity; Window Cleaning Warehouse is not liable for system selection or van compatibility.

WARNING

Operating a vehicle on public roads in the United Kingdom while exceeding its maximum legal payload capacity is strictly prohibited by law. When calculating total weight, you must account for all equipment stored in the vehicle in addition to the cleaning system itself. Overloading your vehicle poses serious safety hazards to both you and other road users.

**Please note that Window Cleaning Warehouse cannot guarantee exact capacities of 500 or 700 litres for these van systems. Stated capacities reflect the overall volume of the rotational moulds, which measure 505 litres and 705 litres respectively. Additionally, water tanks carry a manufacturing tolerance of +/- 4%, and specific system configurations may decrease total usable volume. Consequently, individual tank capacities may vary.*

525 & 725 Intended Use & Compatibility

Compatibility Matrix

Designed for commercial valeting and window cleaning using purified water, the FaceLift® Osmo Compact 525 & 725 van systems are compatible with standard petrol, diesel, hybrid, and electric vehicles*, provided they are securely hard-bolted to the vehicle floor.

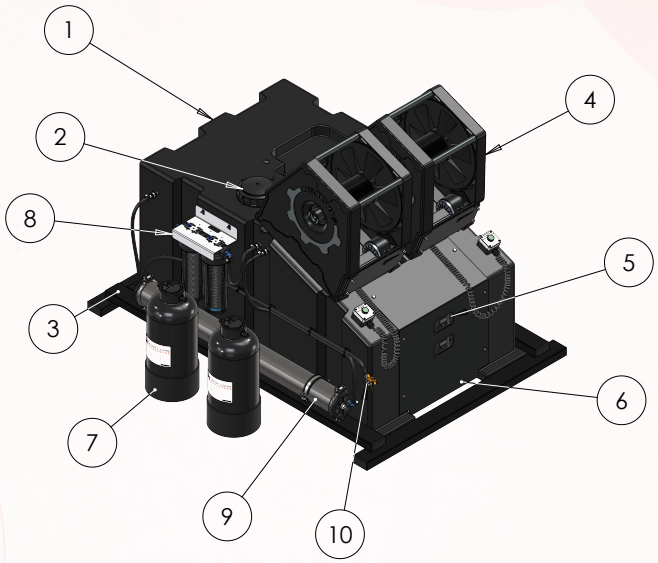
Suitable / Approved	Not Suitable / Prohibited
Domestic and Commercial Window Cleaning / Domestic and Commercial Valeting Industries	Softwashing / Chemical Cleaning Applications
Purified Water / Water	Alkaline Solutions, Acidic Solutions, Bleach / Sodium Hypochlorite, Solvents, and Flammable Liquids
Single-op (1 hose) or Dual-Op (2 hoses simultaneously based on configuration)	Exceeding 2 operator lines or overloading pump flow output
Standard Hose Reel Deployment / rewind on flat surfaces	Unreeling under extreme tension, towing
+4°C to +40°C Ambient Water	Hot Water (>60°C) or Freezing Conditions (<0°C)

Installation Disclaimers

Petrol / Diesel Vehicles: Certain petrol or diesel vans feature critical structural or functional components that may obstruct installation. Window Cleaning Warehouse Ltd strongly advises having the system installed by a professional mechanic or at one of our fitting facilities.

Hybrid / Electric Vehicles: The system cannot be mounted if the securing frame sits directly above the high-voltage traction battery or critical electrical wiring. Specialist consultation at our fitting centres is required for these vehicles, which will typically incur a higher installation fee.

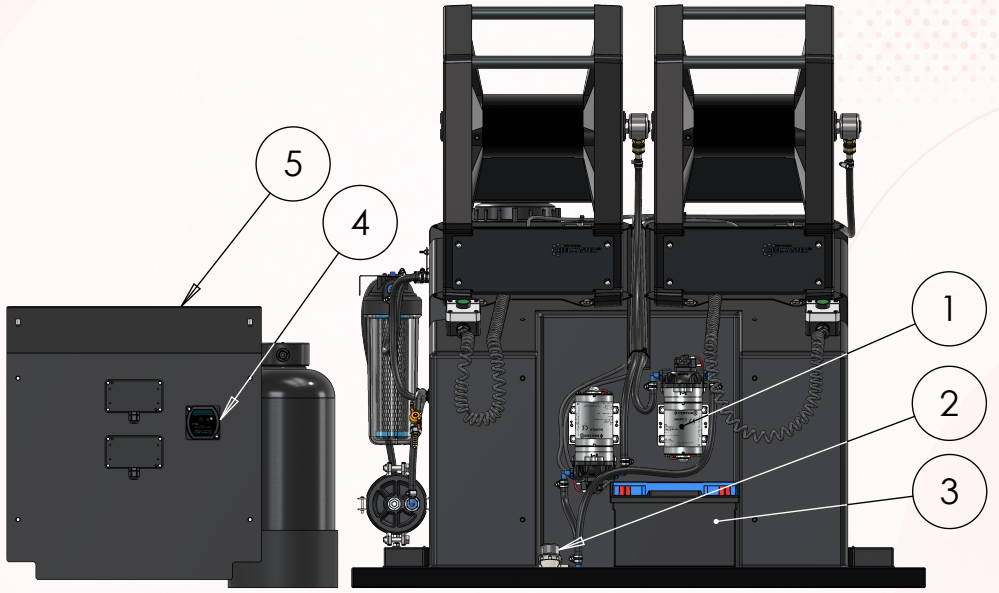
Exterior Overview



Getting to know the Exterior of your new 525 Reverse Osmosis and Deionised Van System

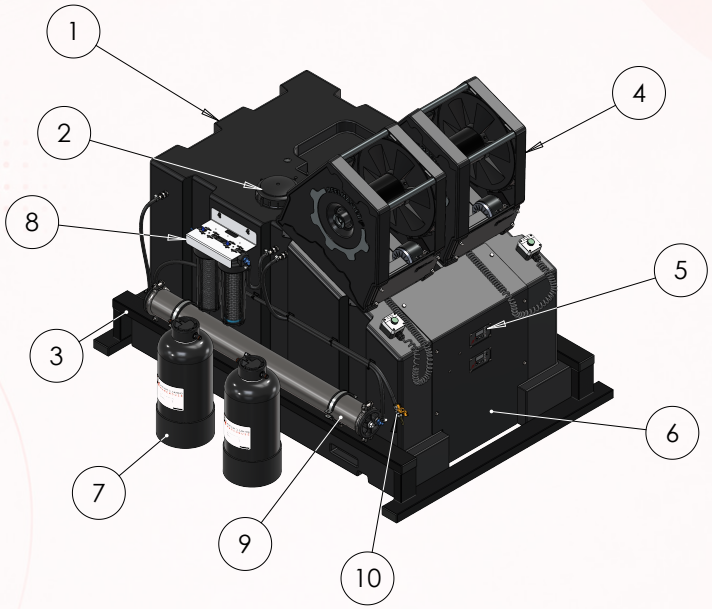
1. **525 Water Tank**
2. **Tank Lid**
3. **Osmo Compact Securing Frame**
4. **Hose Reel Configurations**
   - **Powered Dual-Op** Pure Freedom ReelMaster™ Lite Electric Reels x 2
   - **Manual Dual-Op** Pure Freedom Bolt Down Manual Reels x 2
   - **Powered Single-Op** Pure Freedom ReelMaster™ Lite Electric Reel Centred
   - **Manual Single-Op** Pure Freedom Bolt Down Manual Reel Centred
5. **Controller Configurations**
   - **Dual Operator Spring V16** Digital Flow Controllers x 2
   - **Single Operator Spring V16** Digital Flow Controller (second blanked)
6. **Component Cover**
7. **Deionised Configurations**
   - **Dual Operator Spectrum** Pressure Vessel 8”x17” 10.5L x 2
   - **Single Operator Spectrum** Pressure Vessel 8”x17” 10.5L
8. **Spectrum 10” Pre Filters** (Sediment and Carbon filters)
9. **Spectrum 4040 Reverse Osmosis** membrane filter housing
10. **Waste Water Valve**

Interior Overview



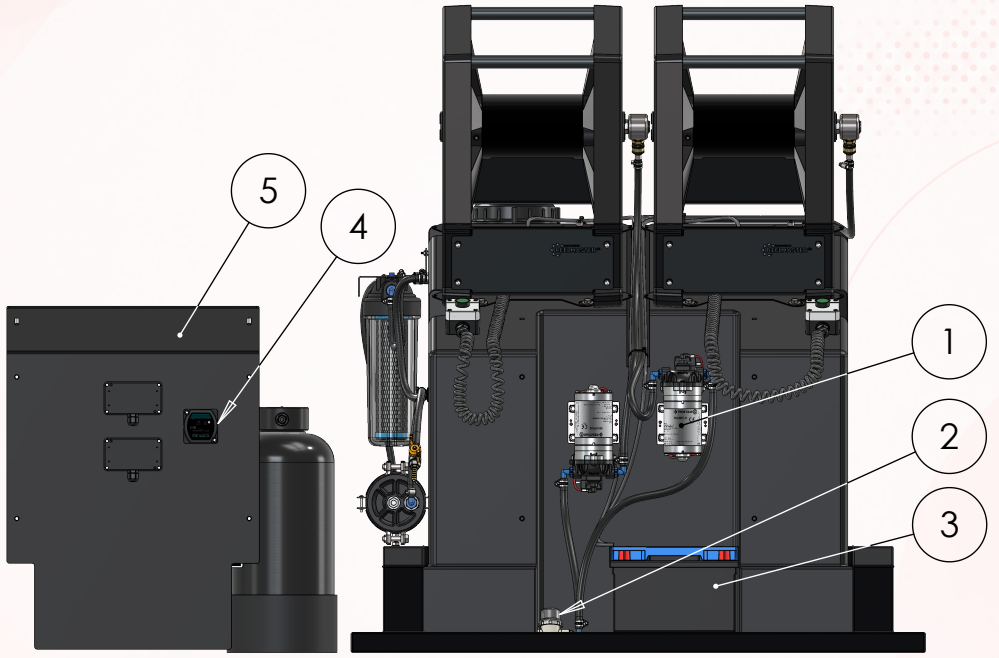
Getting to know the Interior of your new 525 Reverse Osmosis and Deionised Van System

1. **Pump Configurations**
   - **Dual Operator** Shurflo Pump 8000-946-238 x 2
   - **Single Operator** Shurflo Pump 8000-946-238 x 1
2. **Pump Filters Configurations**
   - **Dual Operator** Spectrum Basket Filter x 2
   - **Single Operator** Spectrum Basket Filter (second outlet blanked)
3. **Lead Acid Leisure Battery** 75Ah
4. **Battery Charger Configurations**
   - **Split** Sterling Split Charger
   - **BTB** Orion Battery to Battery Charger
5. **Component Cover**



Getting to know the Exterior of your new 725 Reverse Osmosis and Deionised Van System

1. **725 Water Tank**
2. **Tank Lid**
3. **Osmo Compact Securing Frame**
4. **Hose Reel Configurations**
   - **Powered Dual-Op** Pure Freedom ReelMaster™ Lite Electric Reels
   - **Manual Dual-Op** Pure Freedom Bolt Down Manual Reels
5. **Controller Configurations**
   - **Dual Operator Spring V16** Digital Flow Controllers x 2
6. **Component Cover**
7. **Deionised Configurations**
   - **Dual Operator Spectrum** Pressure Vessel 8”x17” 10.5L x 2
8. **Spectrum 10” Pre Filters** (Sediment and Carbon filters)
9. **Spectrum 4040 Reverse Osmosis** membrane filter housing
10. **Waste Water Valve**



Getting to know the Interior of your new 725 Reverse Osmosis Deionised Van System

1. **Pump Configurations**
   - **Dual-Op** Shurflo Pump 8000-946-238 x 2
2. **Pump Filters Configurations**
   - **Dual-Op** Spectrum Basket Filter x 2
3. **Lead Acid Leisure Battery** 75Ah
4. **Battery Charger Configurations**
   - **Split** Sterling Split Charger
   - **BTB** Orion Battery to Battery Charger
5. **Component Cover**

Initial Setup

Turn on the controller and use the up or down arrows to adjust the flow rate. The system allows adjustments from 0 to 99, with a typical configuration ranging between 20 and 60.



Water should then begin to flow from the brush head. If no water flows after a couple of minutes, please consult the troubleshooting section of this manual.

Operating your 525 and 725 Reverse Osmosis and Deionised System (RO & DI)

Connect the pole hose to the van system outlet and switch on the controller. The outlet is specifically designed to prevent water flow unless a hose is plugged in. Make sure the water tank remains full. Running the pump dry or letting the water source empty completely can draw air into the pump, resulting in an "airlock." If this happens, see the troubleshooting section of this manual. Excessive dry running may lead to pump overheating and permanent damage.

To view the battery voltage, press the enter button once.



Press the enter button a second time to return to the active flow rate display.



Calibrating your 525 and 725 RO & DI Controller(s)

Your van system is delivered with a standard factory calibration. However, you may need to adjust this setting depending on your particular operating conditions. To begin, connect your pole hose to the van system outlet and turn on the controller.

Press the up and enter buttons simultaneously to put the controller into calibration mode.



After a brief moment, "CAL" will change to C and a number, which represents your current calibration setting.Typically, the "CAL" setting is generally configured within the C50 to C65 range.



Once you have adjusted the controller to a value between C60 and C65, you must confirm the setting. Press the enter button; the digital display will then indicate "SEt".



While typical usage involves a flow rate ranging from 20 to 60, we suggest identifying a personal preference based on your specific brush setup and desired water consumption.



If the "dE" (Dead End) warning remains visible following these steps, please consult the troubleshooting section of this manual.

System Pressure Management

To protect your system components, you must remove ALL water pressure from the pipes when not actively cleaning.

1. Turn off your delivery pumps.
2. Allow remaining water to bleed out through your pole jets (ensure your Uni-valve is open if you have one installed).
3. Once the flow stops, safely disconnect your Aqua Stop coupling.

Note: Leaving the system under constant static pressure causes undue stress on hose connections and fittings, significantly increasing the risk of an internal leak.

Pump Preservation and Care

To ensure pump longevity, never run SHURFLO pumps dry. Dry running causes motor overheating and internal valve damage, significantly reducing service life.

⚠ **Warranty Notice:** Pumps are consumables and excluded from warranty unless a manufacturing fault is proven. Split pump diaphragms caused by freezing water are not covered.

Winter Maintenance and Care

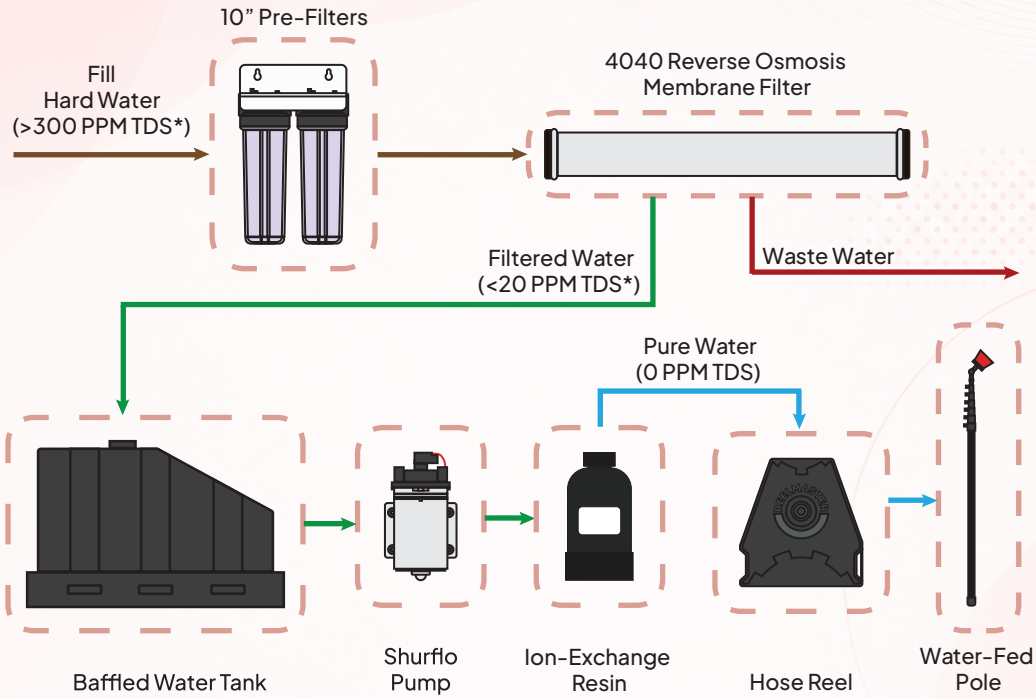
Severe winter weather can cause water to freeze solid inside your van system, leading to irreparable structural damage. Adherence to these core practices is highly recommended:

- **Avoid Overfilling:** Do not fill the water tank to maximum capacity; leave headspace to safely accommodate ice expansion.
- **Depressurize & Drain:** Vent all line pressure and drain your pole hoses completely at the end of every shift.
- **Shelter:** Store the vehicle indoors or under shelter whenever possible to mitigate sub-zero exposure.

The Ultimate Protection: For the most effective frost protection, the absolute best practice is to utilize an **ION-Fire** or **ISOTHERMAL 2** hot water system equipped with frost protection, which maintains the van ambient temperature **above 5°C.**

Battery Maintenance and Preservation

To protect the longevity of your van system batteries, it is essential to maintain a full charge and avoid prolonged periods of low voltage. For comprehensive guidance on battery health, please consult the dedicated maintenance page.



The 525 and 725 Reverse Osmosis and Deionised systems operate by treating hard water (exceeding 300 PPM*) through 10-inch sediment and carbon pre-filters, followed by purification via a 4040 reverse osmosis membrane. This configuration generally separates the supply into waste water and processed water (under 20 PPM TDS*), the latter of which is stored in the baffled tank. This pre-filtered water is subsequently pumped through your deionising vessel(s), where the resin typically achieves 0 PPM, before reaching your water-fed pole via the hose reel.

To maximize the lifespan of your resin, ensure the tank is free from significant contaminants.

Utilizing 0ppm water for cleaning offers multiple benefits, including fast cleaning times, no water spotting after cleaning, and no need for soaps.

**Reverse Osmosis and Deionised configurations are engineered for operation within hard water regions; their use is strongly advised when TDS readings exceed 300 PPM. Elevated PPM concentrations will markedly accelerate the depletion of your filtration media. Though precise consumption remains challenging to quantify owing to factors such as regional water characteristics, overall volume, and delivery speed. If you are finding your RO & DI system is taking a long time to filter water you may need a booster pump to increase filtration speed.*

Replacing Reverse Osmosis Filters

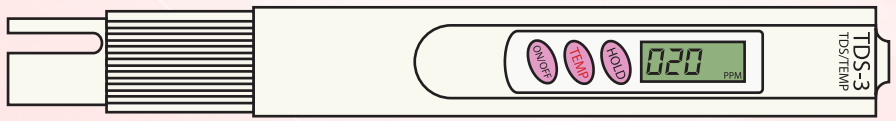
To keep your system operating correctly, we strongly advise checking your Total Dissolved Solids (TDS) levels every week. You can measure the Reverse Osmosis TDS by opening the tank lid and locating the float valve, where water will be flowing. When you notice the TDS levels starting to increase during a tank fill, it indicates that the Reverse Osmosis filters need to be replaced. Follow the procedures below to complete the replacement process:

Replacing the Pre-Filters

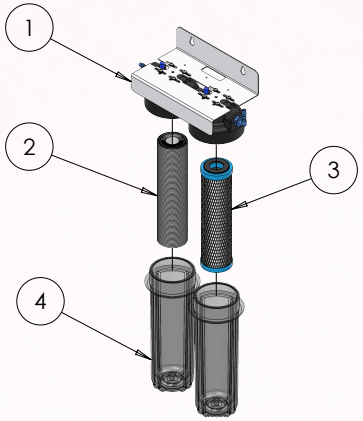
1. Depressurize the pre-filters by locating the bright blue or red plastic vent and pressing it down to release any trapped pressure.
2. Remove the sumps using the sump wrench. Because the pre-filter sumps feature a top-mounted O-ring, removing the filter can sometimes be difficult. Keep in mind that these use standard threads—turn clockwise to tighten and counter-clockwise to loosen.
3. Install the new filters, ensuring the paper filter is positioned on the left side of the pre-filters and the carbon filter is on the right side. Securely tighten the sumps back into place.

Replacing the 4040 Membrane

4. Open the waste valve, disconnect the RO inlet from the tank's quick coupling, and blow through the pipe to clear out as much stagnant water as possible prior to filter replacement.
5. Detach the clamp that secures the end cap located closest to the hose reels and the front control panel. Once the clamp is off, pull the end cap away. Note that the 4040 membrane housing utilizes sealing gaskets, which can make removal quite challenging. If it feels stuck, carefully pry it open using a flat-blade screwdriver. NEVER USE A HAMMER for this step.
6. Extract the old 4040 membrane. When installing the new one, pay close attention to the gaskets: there is one black gasket at the base and two near the top, which indicate the correct flow direction. On 525 and 725 systems, water flows toward the front panel and hose reels (two O-rings nearest the front panel). When reinstalling the end cap, NEVER use a steel hammer; if you encounter resistance, use a rubber mallet instead.
7. Start the system up and evaluate the TDS level to verify that it has successfully dropped back down to <20 PPM.
    - Throughout this testing phase, make sure to flush the membrane by opening the waste valve completely to discharge excess water. Keep doing this until the TDS steadily remains at or below roughly 20 PPM.

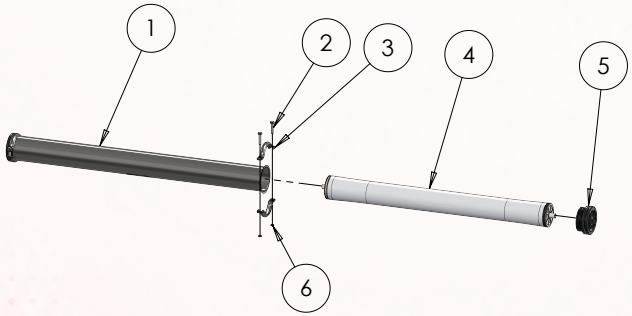


Replacing Reverse Osmosis Filters



Getting to know your FaceLift® 525 & 725 Pre-Filters

1. **Spectrum Dual** Filters Heads
2. **Sediment Filter**
3. **Carbon Filter**
4. **Spectrum EFHS** Filter Sump



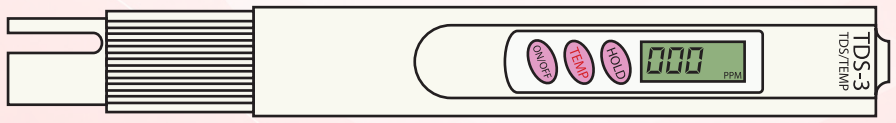
Getting to know your FaceLift® 525 & 725 RO Housing

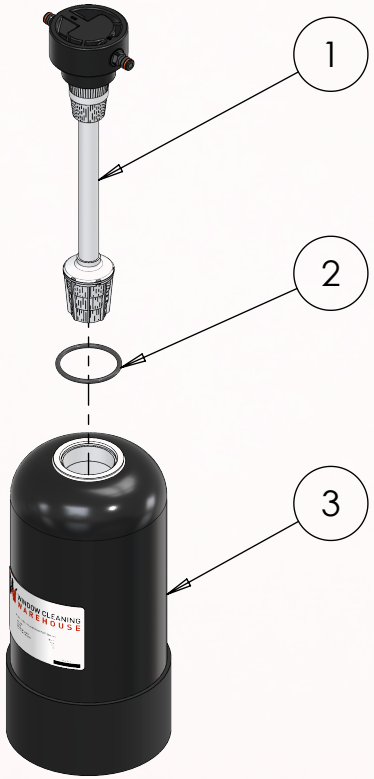
1. **4040 Spectrum Membrane Housing**
2. **Spectrum Hex Bolt**
3. **Spectrum Membrane Housing C Clamp**
4. **4040 Spectrum Membrane Filter**
5. **4040 Spectrum Membrane** End Cap
6. **Spectrum Hex Nut**

It is highly recommended that you perform a weekly assessment of your system's Total Dissolved Solids (TDS). For optimal results, we advise measuring the water flow both prior to and after it passes through your window cleaning pole; this procedure ensures that any potential brush head contaminants do not compromise your readings.

When your Total Dissolved Solids (TDS) levels begin to rise, it is time to change your ion-exchange resin. Follow these steps to complete the replacement process:

1. Depressurize the window cleaning system by turning off the pumps, connecting your pole, and allowing water to flow out until all pressure is fully released.
2. Take note of the resin bottle's orientation, specifically noting which pipes connect to the inlet and outlet. Disconnect the pipes and remove the resin bottle from the system or vehicle.
3. Empty the old resin and thoroughly wash both the bottle and the riser tube. Ensure no resin particles remain on the threads or O-ring, and dispose of the used resin in accordance with local municipal regulations.
4. Pour clean resin into the bottle until it is nine-tenths full (to the point where the bottle starts to narrow at the top), settling it down by shaking and tapping the bottle base against the floor. Top up with small amounts of resin as needed until the packed bed sits consistently three-quarters full.
5. Place a clean O-ring and the lid back onto the bottle. Make sure there is no resin on the threads or O-ring, as this will compromise the seal. Secure the lid tightly using downward pressure and twisting, taking care not to cross-thread or damage the threads.
6. Reinstall the bottle, reconnect the pipes to their correct positions, and secure the bottle back into the system or vehicle.
7. Run the system and test the TDS level to confirm that it has successfully returned to 0 PPM.
    - During the testing phase, please allow sufficient time for residual high-TDS water to clear from the hose reels. To ensure accurate readings, we recommend dead-ending the system to build pressure, then releasing it to stabilize the flow test TDS. Repeat this procedure until the TDS measurement successfully returns to approximately 0 PPM.





Getting to know your FaceLift® 525 & 725 resin bottle

1. **SV-FL-817** Riser tube & head
2. **SV-FL-817** O-Ring
3. **SV-FL-817** Resin bottle 8" 10.5L



WARNING

The securing frame of your 525 / 725 system is constructed from high-grade carbon steel and finished with a protective powder coat. Because purified water contains zero minerals, it actively seeks to stabilise itself by stripping elements from its environment (this is why WFP window cleaning is so effective).

Should the powder-coated finish suffer chips or abrasions, the deionised water will immediately begin to aggressively oxidise the underlying metal. This process triggers delamination of the protective layer. If these minor defects remain unsealed, a localized chip can rapidly escalate into extensive corrosion.

Damage caused by chemical neglect or delamination due to untreated paint chips is strictly excluded from factory warranty coverage. Equipment maintenance remains the sole responsibility of the owner.

Maintenance Guide and Rust Prevention

When inspecting the system, check the interior and exterior chassis weekly. If you spot any paint chips, scratches, or exposed metal edges from loading poles or tools, you must immediately seal them with an automotive-grade paint pen or touch-up paint to barrier the metal from pure water contact.

Touch-Up Paint Specifications

Use only the exact factory-matched paint codes below to maintain your system's finish:

Frame: **RAL 9005 (Jet Black)**

CRITICAL SAFETY WARNING: Hardware Security

Heavy vibrations during transit can loosen mounting hardware. Periodically inspect the securing frame, brackets, and bolts to ensure the assembly remains rigid. A loose 525/725 system presents an extreme road safety hazard.

Battery Maintenance & Charging

The FaceLift® Osmo Compact 525 & 725 delivery systems are powered by an on-board 12V deep-cycle leisure battery (fitted with a 75Ah unit as standard, or an optional 110Ah high-capacity unit). Depending on your vehicle's engine and charging configuration, the system incorporates either a Voltage Sensitive Relay (VSR) split-charge system or a smart Battery-to-Battery (B2B) charger:

- **Standard Split Charger (VSR):** Suitable for conventional pre-Euro 6 charging systems. The VSR automatically disconnects the system's leisure battery when the engine is off to safeguard the vehicle's starter battery from being drained.
- **Battery-to-Battery (B2B) Charger:** Mandatory for Euro 6 engines equipped with regenerative braking and smart alternators. A B2B charger detects when the vehicle engine is actively running and delivers a controlled multi-stage charge curve to the leisure battery while maintaining total electrical isolation between circuits.

Estimated Driving Charge Times

Charging System	Standard Battery (75Ah)	High-Capacity Battery (110Ah)
VSR Split Charger (~180A alternator)	**1.5 to 2.5 hours** driving time	**2.0 to 4.0 hours** driving time
30A B2B Charger (Smart alternator)	**4.0 to 5.5 hours** driving time	**6.0 to 8.0 hours** driving time
10A Mains Smart Charger (Bench charging)	**5.0 to 6.5 hours**	**7.5 to 9.5 hours**

Note: Stated charge times reflect the time required to bring a battery from 50% Depth of Discharge (DoD) to 100% full capacity. Alternator charging times will vary based on vehicle electrical load and route conditions.

Battery Preservation Best Practice

- Avoid Deep Discharge: Deep-cycle lead-acid batteries should never be routinely discharged below 50% capacity (approx. 12.1V–12.2V at rest). If the controller display drops below 11.5V ("BAt") or cuts out at 11.0V ("StP"), recharge immediately.
- Bench Charge Low-Mileage Routes: If daily drive times between jobs are shorter than the charging intervals outlined above, vehicle charging alone will be insufficient. Regularly connect the leisure battery to an external smart mains bench charger overnight to prevent chronic undercharging, capacity degradation, and premature battery failure.

Maintenance Task	Before Every Use	After Every Use	Weekly	Reference
Check Battery Level Ensure the van system is sufficiently charged for operation.	✓	✓		Page 17
Inspect Hose Reel & Hose Condition Check for hose damage or wear that could lead to leaks.	✓	✓		Pages 4–7
Check TDS Level & Water Tank Verify pure water quality and inspect the tank for contaminants.			✓	Page 11–15
Inspect Strainers Clean out any accumulated debris or buildup.			✓	Pages 5 & 7

Maintenance Task	Before Every Use	After Every Use	Weekly	Reference
Inspect Fittings & Plumbing Check all van pipework, joins, and quick-connect couplings for fluid leaks.			✓	Page 11
Inspect Securing Frame Check for paint chips, corrosion, or structural damage.			✓	Page 16
Filter and Membrane Inspection Examine filters and membranes to identify any buildup or accumulation of debris.			✓	12–15

Warranty Overview

525 & 725 Systems are supported by a 1-year back-to-base warranty. Unless prior arrangements are made with our staff, customers are responsible for all shipping costs associated with returning a unit for service. Upon inspection, if a defect is verified and covered under the terms of this warranty, we will proceed with a repair, replacement, or refund at our sole discretion. Please note that resolving manufacturer defects related to pumps that are returned to the manufacturer may require up to 28 working days.

We will not cover any damage caused by the customer or neglect of the system.



Terms for Voiding Warranty

To protect the integrity of the system, the following actions will result in an immediate forfeiture of warranty coverage:

- Unauthorized alterations or tampering regarding the water tank and its securing frame.
- Any modifications performed on the electrical or plumbing.
- Issues arising from customer neglect or improper care of the unit.

Verification Procedures

In instances where tampering is suspected, we conduct a comprehensive review of the system.



WARNING
OVERLOAD HAZARD: DO NOT EXCEED the vehicle's **maximum payload capacity** when loaded with system, equipment, and water. Excess weight alters handling. **INCREASE FOLLOWING DISTANCES** and allow for extended braking. Fluid movement in partially filled tanks **WILL drastically impact vehicle stability.**



WARNING
CRASH AND DISLODGMENT HAZARD: Improperly secured tanks pose a **fatal risk** in the event of a vehicle collision. This system must be **installed by an authorised professional installation site. Regularly inspect mounting points** to ensure the tank remains fully secured. **Never operate the vehicle if the mounting appears loose or unstable.**



DANGER
ELECTROCUTION HAZARD (WATER-FED POLES): Purified water is conductive. **Fiberglass poles can still conduct electricity.** Overhead power lines **WILL** cause **fatal electrocution. MAINTAIN SAFE CLEARANCE at all times. DO NOT OPERATE NEAR OVERHEAD LINES. PERFORM A RISK ASSESSMENT** before every job. If risk of contact exists, **DO NOT PROCEED.**



DANGER
LIGHTNING HAZARD: In the event of a thunderstorm, **CEASE ALL WORK IMMEDIATELY.** Pack up all equipment. **ENSURE NO WATER-FED POLES ARE HELD** above head height. Seek safe shelter inside a vehicle or building.



CAUTION
TRIP HAZARD: Deployed hose lines create significant trip hazards for operators and the public. **ALWAYS CORDON OFF THE WORKING AREA.** Utilise highly visible warning signage while the system is in active use.



WARNING:

MECHANICAL INJURY RISK (POWERED REELS): Systems equipped with powered hose reels contain high-torque moving parts that pose a risk of crushing injury.

- **Hose Handling:** Keep hands and fingers a **minimum of 1-metre safe clearance distance** from the reel drum at all times during active retrieval. **Never touch the hose close to the intake point,** as the mechanical torque can quickly pull hands into the mechanism.
- **Chain Guard:** Always ensure the mechanical chain guard **is securely fitted** before operating the system. Never remove or bypass protective guarding.
- **Operation: Only guide the hose** onto the reel if you are maintaining the mandatory **1-metre safe clearance distance** from the drum assembly.



CAUTION

SLIP HAZARD: Spilled resin beads possess negligible traction and constitute a **significant slip hazard.** Ensure any **spilled material is cleaned up immediately** to prevent accidental injury

MANDATORY OPERATOR PERSONAL PROTECTIVE EQUIPMENT (PPE)

Under UK Health & Safety Regulations, operators must wear the following certified PPE at all times during system filling, operation, and maintenance:

- **Eye Protection (BS EN 166):** Impact-rated safety eyewear to protect against high-pressure water spray and debris.
- **Safety Footwear (BS EN ISO 20345):** Protective toe-cap boots with non-slip soles for wet van floors and heavy load protection.
- **Protective Gloves (BS EN 388):** High-grip, abrasion-resistant gloves to protect hands against reel pinch points and hose friction.
- **High-Visibility Vest/Jacket (BS EN ISO 20471):** (Class 2 or 3 hi-vis clothing) for operator safety on public highways and commercial sites.



Your 525 or 725 RO & DI system can be equipped with either one or two controllers, depending on its specific setup. When troubleshooting dual operating systems, some faults may be isolated to an individual reel and outlet line, while other problems will affect both outlets.



dE - Dead End

The message dE means the Dead End detection has shut off the controller and pump. This happens when the controller detects the water flow has been stopped. Reasons for this include:

- **Closed tap or valve:** This could be on your pole hose or reel.
- **Kinked hose or blockage:** Obstruction in a pipe or hose line.
- **Calibration settings:** Settings are overly sensitive.
- **False Dead End Detection**: Indicates that the calibration has been set too low. Follow the instruction to calibrate your controller in the Initial Setup section.

PS - Pressure Switch

The appearance of the 'PS' message indicates that high pressure within the system has activated the pump's pressure switch. This issue is typically caused by one of the following factors:

- A prolonged restriction affecting the water flow. Refer to the dE (Dead End) section for possible reasons.
- Obstructed or undersized water jets: Recommended minimum size of 1.0mm.
- Wiring or connection faults, including poor connections, damage, or corrosion on wires and connectors.



BAt – Low Battery:

"BAt" flashing means the battery voltage has dropped below **11.5V** and requires charging immediately. It may be caused by the following:
Please note: The controller measures the voltage at the controller, if testing the battery with a voltmeter, there may be variance.

- A restriction to the **water flow** in the system, causing the pump to work harder. In turn this will draw more current and drag the voltage down.
- There is **corrosion or damage** to the wiring or connectors.
- Your battery may be **getting old and inefficient** and not holding its charge.
- Your pump may have **worn motor brushes** and draw higher current; this will increase the voltage drop.



StP – Stop:

If the voltage drops below 11.0V, the controller will shut down the system completely in order to **protect the battery.**
The manufacturer recommends that a battery is not run below 11.0V.



Err – Error:

The 'Err' notification signifies a disruption during the AutoCal process. This fault typically arises if the motor remains disconnected or should the operator manually terminate the procedure by selecting the enter key.

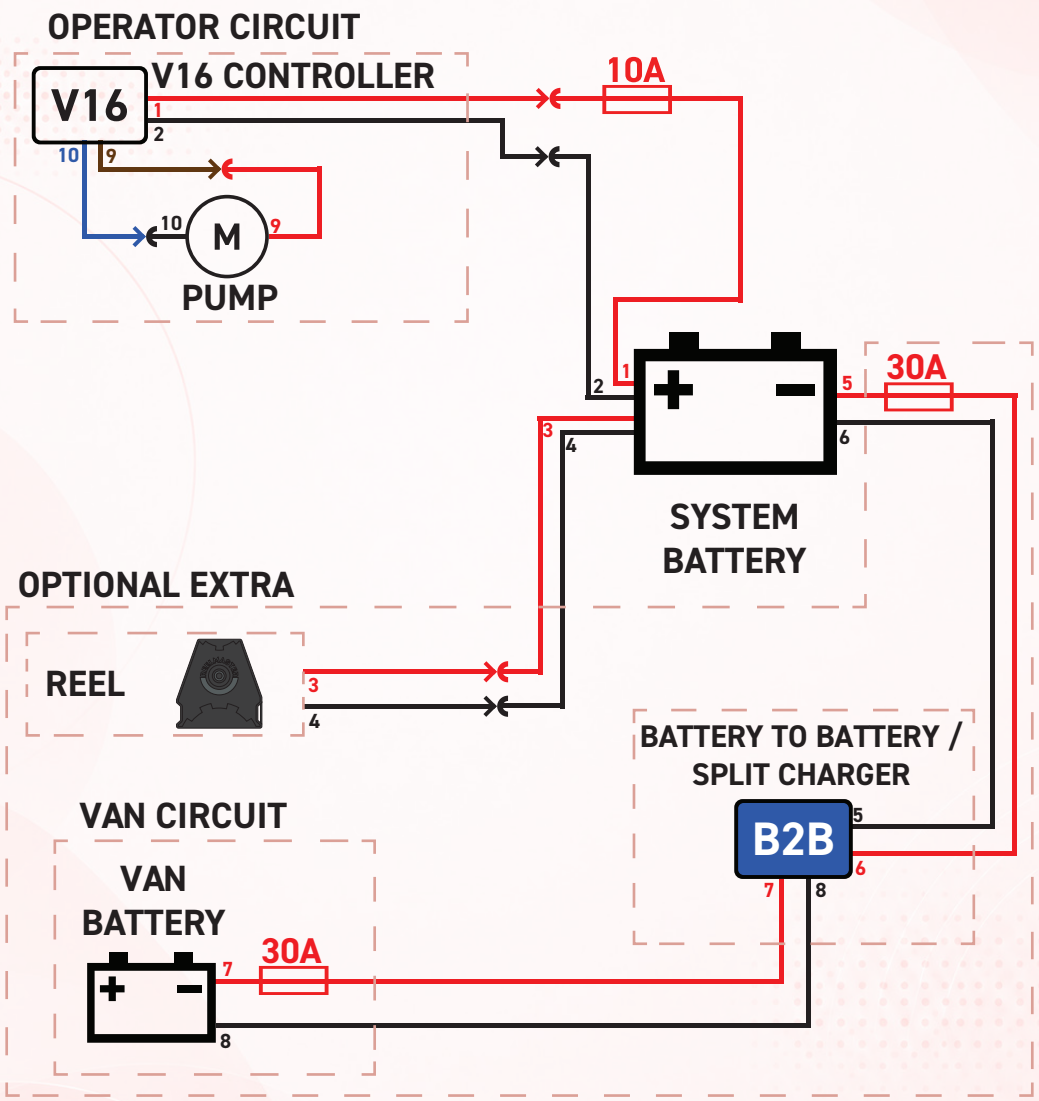
- Inspect for physical damage: Confirm that cabling connecting the pump and controller remains intact
- Calibration Reset: Should the error occur throughout AutoCal, it likely indicates the procedure was terminated prematurely. Power cycle the controller, establish your standard flow rate, and restart the calibration sequence to allow the system to re-register motor resistance levels.



OC – Over Current:

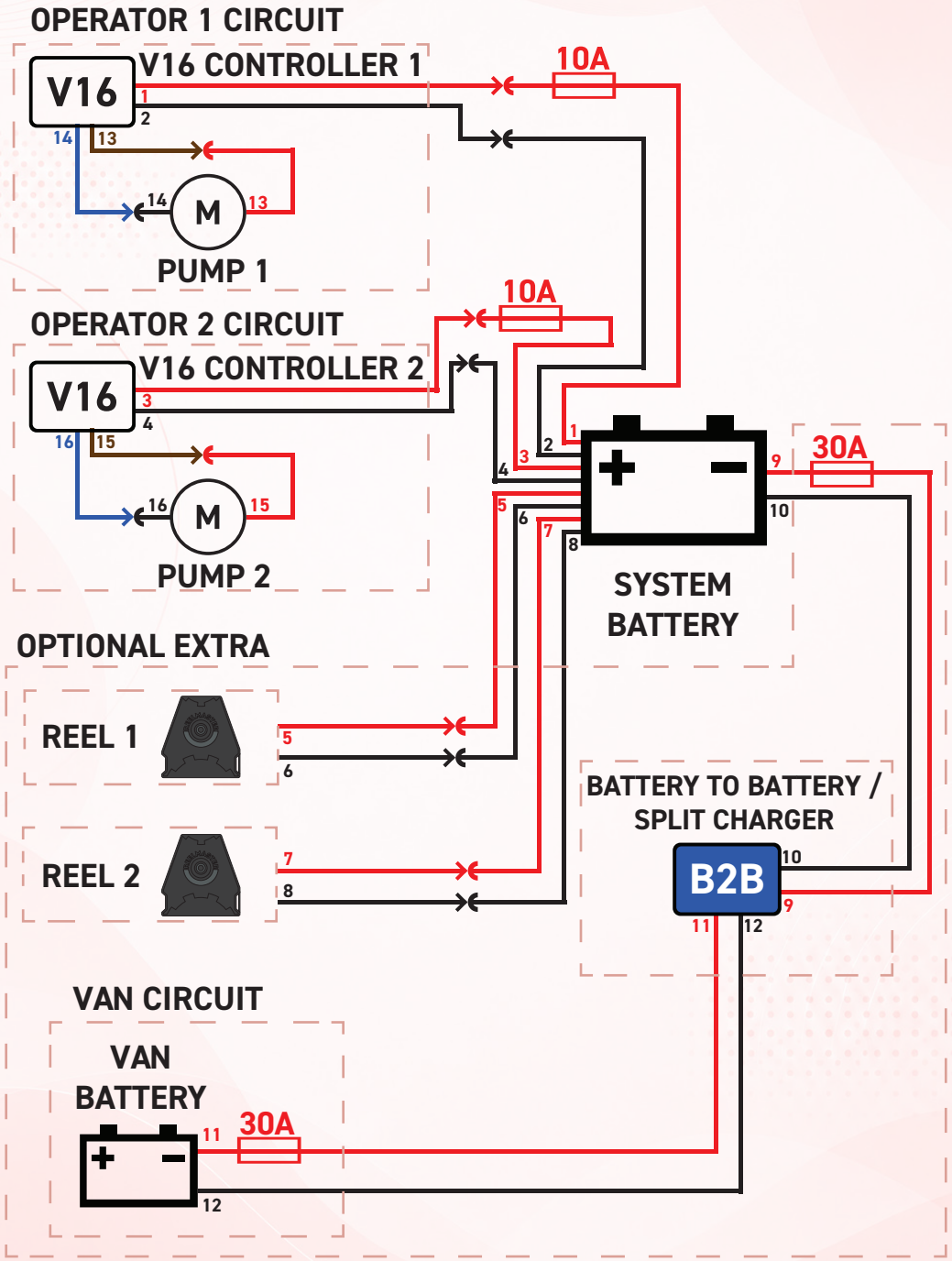
The 'OC' message indicates that the pump is drawing excessive current. To prevent internal damage, the controller will automatically deactivate the system if the current reaches or exceeds 7.5A.

- Several factors may contribute to an elevated current draw:
- Internal wear or physical damage to the pump motor.
- Improper calibration settings. If the pump is functioning normally, please refer to the initial setup instructions and recalibrate the unit.
- System flow restrictions paired with an incorrect calibration level.



Wire ID No.	Wire Colour	Connection Path	Function / Circuit
1	RED	(S) Battery (+) → 10A fuse → V16 (+)	Op Circuit V16 Power
2	BLACK	(S) Battery (-) → V16 Ground	Op Circuit V16 Ground
3	RED	(S) Battery (+) → Electric Reel (+)	Electric Reel Circuit Power
4	BLACK	(S) Battery (-) → Electric Reel (-)	Electric Reel Circuit Ground
5	RED	(S) Battery (+) → 30A Fuse → B2B (+) Outlet	(S) Battery charge feed from B2B charger outlet
6	BLACK	(S) Battery (-) → B2B (-) Outlet	(S) Battery ground feed from B2B charger outlet
7	RED	(V) Battery (+) → 30A Fuse → B2B (+) Inlet	(V) Battery power to B2B charger inlet
8	BLACK	(V) Battery (-) → B2B (-) Inlet	(V) Battery Ground to B2B charger inlet
9	BROWN / RED	V16 (+) → Pump 1 (+)	Op 1 V16 Pump power
10	BLUE / BLACK	V16 (-) → Pump 1 (-)	Op 1 V16 Pump ground

Dual Operator Circuit



Dual Operator Circuit Legend

Wire ID No.	Wire Colour	Connection Path	Function / Circuit
1	RED	(S) Battery (+) → 10A fuse → V16–1 (+)	Op Circuit 1 V16 Power
2	BLACK	(S) Battery (-) → V16–1 Ground	Op Circuit 1 V16 Ground
3	RED	(S) Battery (+) → 10A fuse → V16–2(+)	Op Circuit 2 V16 Power
4	BLACK	(S) Battery (-) → V16–2 Ground	Op Circuit 2 V16 Ground
5	RED	(S) Battery (+) → Electric Reel 1 (+)	Electric Reel 1 Circuit Power
6	BLACK	(S) Battery (-) → Electric Reel 1 (-)	Electric Reel 1 Circuit Ground
7	RED	(S) Battery (+) → Electric Reel 2 (+)	Electric Reel 2 Circuit Power
8	BLACK	(S) Battery (-) → Electric Reel 2 (-)	Electric Reel 2 Circuit Ground
9	RED	(S) Battery (+) → 30A Fuse → B2B (+) Outlet	(S) Battery charge feed from B2B charger outlet
10	BLACK	(S) Battery (-) → B2B (-) Outlet	(S) Battery ground feed from B2B charger outlet
11	RED	(V) Battery (+) → 30A Fuse → B2B (+) Inlet	(V) Battery power to B2B charger inlet
12	BLACK	(V) Battery (-) → B2B (-) Inlet	(V) Battery Ground to B2B charger inlet
13	BROWN / RED	V16–1 (+) → Pump 1 (+)	Op 1 V16 Pump 1 power
14	BLUE / BLACK	V16–1 (-) → Pump 1 (-)	Op 1 V16 Pump 1 ground
15	BROWN / RED	V16–2 (+) → Pump 2 (+)	Op 2 V16 Pump 2 power
16	BLUE / BLACK	V16–2 (-) → Pump 2 (-)	Op 2 V16 Pump 2 ground

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Installation Date:

Installation Site:

Van System Type:

Vehicle Registration:

Vehicle VIN:

FaceLift®

Osmo Compact 525 / 725
Reverse Osmosis & Deionised

Manufacturer: Window Cleaning Warehouse Ltd
Doc Ref: FL-OSMO-RO-V1.0 / Date: 10/2026 / Rev 1