FaceLift® Nomad 45 Litre Trolley System Owner's Manual

Original Instructions
Nomad 45L Standard SHURFLO (**FLN45T**)
Revision 1
(English)



FaceLift®

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Nomad 45 Litre Compatibility Notice

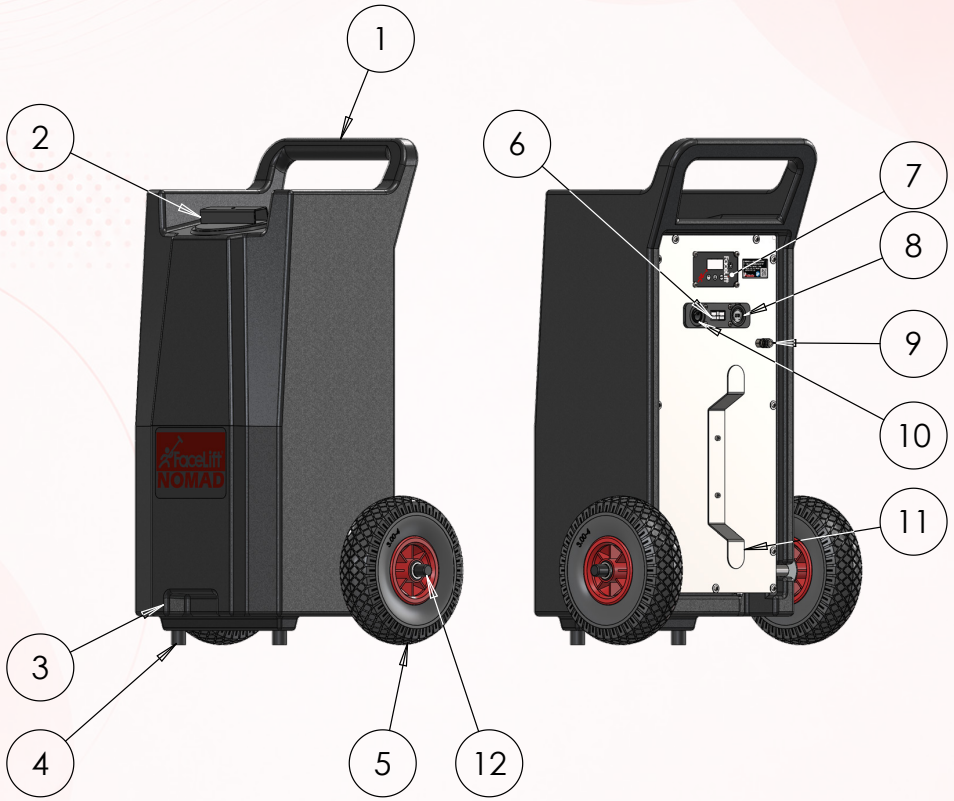
Product Description



The Nomad 45-litre trolley is a portable cleaning system built for commercial valeting and window cleaning. The unit features a high-density polyethylene (HDPE) tank along with a standard Shurflo window cleaning pump designed exclusively for purified water and ambient water.

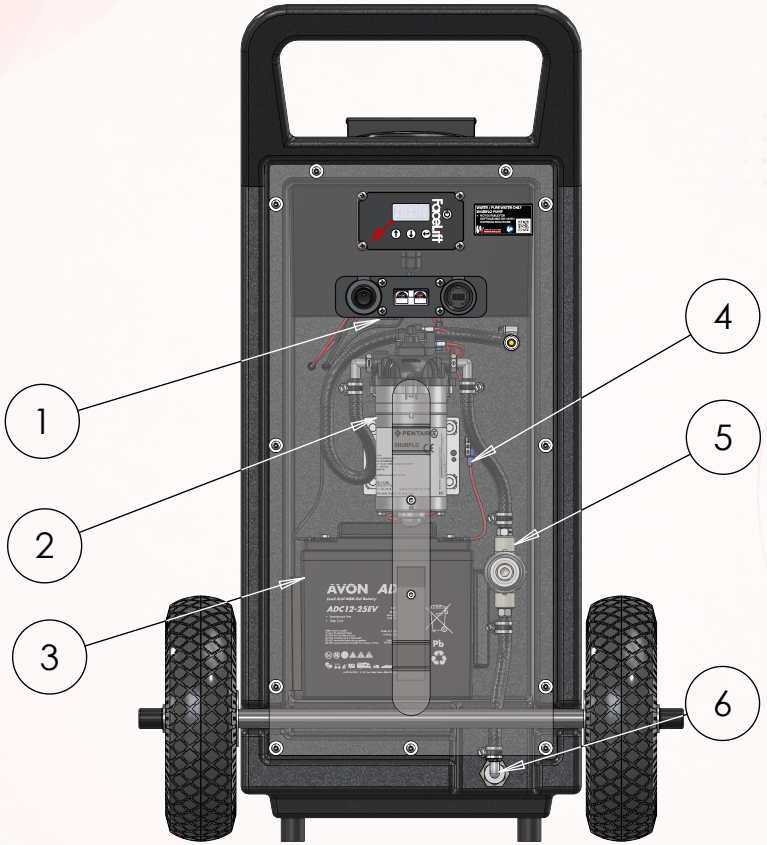
SUITABLE	NOT SUITABLE
Domestic & Commercial Window Cleaning **Domestic & Commercial Valeting**	**Exterior Soft Washing** (Softwash chemical solutions)
Ambient Water & Purified Water	**Hot Liquids** Exceeding Max Temp (>60°C / 122°F) **Flammable & Volatile Solvents** (Petrol, thinners, oil sealers) **Strong Concentrated Acids** (e.g. Hydrofluoric Acid) **Strong Concentrated Alkalines**(e.g. Sodium-hypochlorite base) *Note: Unapproved chemicals can rapidly degrade pump diaphragms and internal seals, causing system failures.*

The manufacturer retains authority to VOID WARRANTY if damage, neglect, or harsh chemicals compromise system integrity.



Getting to know the exterior of your new Nomad 45 Litre Trolley

1. Tank Pull Handle
2. Tank Lid
3. Tank Pickup Handle
4. Nomad Rubber Feet
5. Nomad Anti-Puncture 260mm Wheels
6. Nomad Charger Port
7. Spring V16 Controller
8. Nomad Voltmetre
9. Nomad Series 21 Quick Connector
10. Nomad On / Off switch
11. Hose Hook
12. Nomad Wheel Cap



Getting to know the interior of your new Nomad 45 Litre Trolley

1. Nomad 10A Switch Controller Fuse
2. Nomad Standard Pump Shurflo 8000-946-238
3. Avon ADC12-25Ah
4. Nomad 10A Battery Fuse
5. Nomad Strainer
6. Nomad Tank Pickup

Initial Setup

1. Switch on the main Nomad power switch (Item 10).
2. Press the power button on the Spring V16 controller (Item 7).
3. Use the UP or DOWN arrows to set your desired flow rate (typically set 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 Nomad 45 Litre Trolley System

Connect the pole hose to the Nomad 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.

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 Nomad 45 Litre Trolley System

Your trolley 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 trolley 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 C50 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" warning remains visible following these steps, please consult the troubleshooting section of this manual.

Trolley Pressure Management

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

1. Turn off your delivery pump.
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 Nomad 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. Coverage does not extend to diaphragm or valve damage resulting from freezing water, chemical neglect, or degradation caused by harsh or unsuitable chemicals.

Winter Maintenance and Care

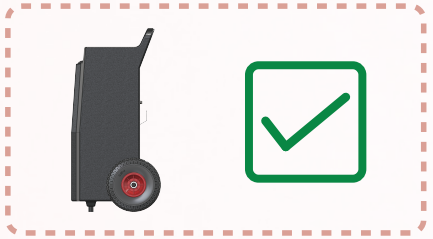
Severe winter weather can cause water to freeze solid inside your trolley system, leading to irreparable structural damage. Adherence to these core practices is highly recommended:

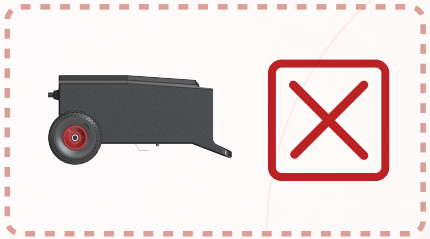
- **Avoid Overfilling:** Do not fill the water tank to maximum capacity; leave headspace to safely accommodate ice expansion.
- **Depressurize & Drain:** Vent all line pressure and drain your pole hoses completely at the end of every shift.
- **Shelter:** Store the trolley indoors or under shelter whenever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

Battery Health: Always maintain a full charge and avoid prolonged low voltage. For the full battery charging guide and care schedule, see **Page 8.**

Transportation Guide

During transport, ensure the Nomad Trolley remains in an upright position. Laying the unit flat will cause fluid to spill through the vented cap.





Battery Care

The Nomad includes built-in voltmeters on both the switch/charging panel and the Spring V16 controller to monitor the 12V 25Ah AGM battery.

Voltage readings correspond to the following charge states:

- **13.0V (±0.2V):** Fully charged
- **12.0V (±0.2V):** Low charge
- **11.5V (±0.2V):** Triggers the "BAT" warning on the V16 controller
- **10.5V (±0.2V) or lower:** The V16 controller will not power on

To maximize battery health and lifespan, avoid deep cycling the 12V AGM battery by keeping the trolley charged above 12V. Deep cycling occurs when the battery is routinely depleted from full capacity to under 30%.

At Window Cleaning Warehouse, we advise keeping the battery charge above 50% and preventing it from remaining in a low-charge state for extended periods.



Fully charged

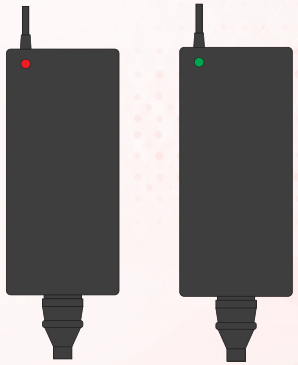


Low charge

For illustrative purposes only

Nomad Charger Indicator LED Key

- **Red LED** trolley is charging
- **Green LED** trolley is fully charged / charger is idle



Maintenance Task	Before Every	After Every Use	Weekly / Storage	Reference
Inspect Plumbing & Hose Lines Check fittings, connections, and strainers for leaks or damage.	✓			Page 2–3
Check Battery Voltage Verify charge on voltmeter; charge immediately if below 12.0V.	✓	✓		Page 8
Depressurize System Bleed remaining water pressure through pole jets before disconnecting.		✓		Page 6
Full Battery Refresh Charge Charge to 100% (Green LED) before extended storage.			✓	Page 8

Warranty Overview

All Nomad Trolley Systems are supported by a **1-Year Limited Back-to-Base Warranty.**

- **Return & Shipping:** Customers are responsible for all shipping costs associated with returning a unit for inspection and service, unless prior written arrangements have been made with our team.
- **Inspection & Resolution:** Upon inspection, if a manufacturing defect is verified and covered under this warranty, Window Cleaning Warehouse will repair, replace, or refund the unit at our sole discretion.
- **Turnaround Time:** Please allow up to 28 working days for inspection, component sourcing, and repair completion during peak periods.



Exclusions & Limitations

This warranty strictly covers manufacturing faults. Coverage **does not** apply to:

- Accidental damage, misuse, or physical impact caused by the operator.
- Component damage resulting from chemical neglect, improper flushing, or freeze damage.
- Wear-and-tear on consumable components (such as pump diaphragms, valves, and fuses) unless a clear manufacturing defect is proven.



CAUTION
SLIP & TRIP HAZARD: Unspooled delivery hoses on site create severe trip risks for operators and the public. Route hose runs away from primary walkways, maintain a tidy workspace. Always **cordon off the working area** and **utilize appropriate, visible warning signage** while the system is in operation



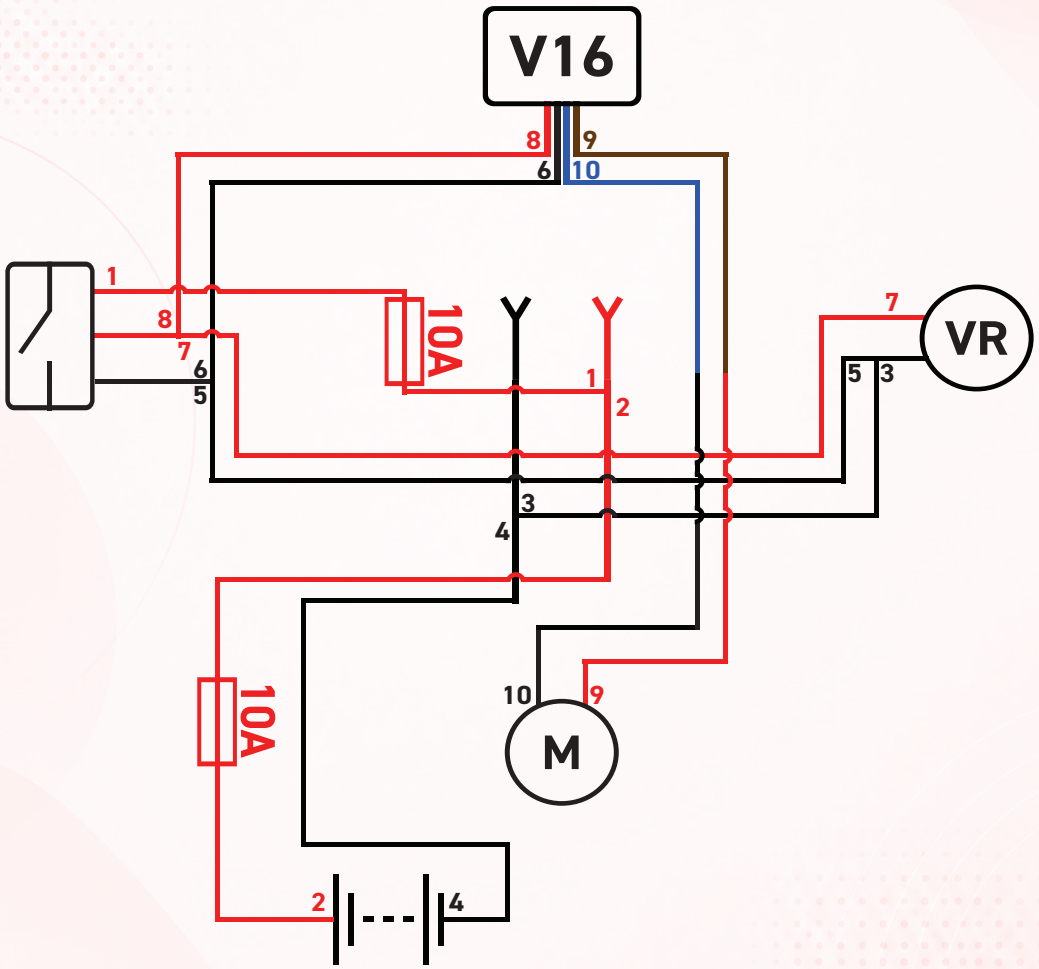
DANGER
ELECTROCUTION RISK (WATER-FED POLE SYSTEMS): High-voltage overhead power lines can arc across air gaps to **any object** including carbon fiber, fiberglass, or wet poles. You must **perform a thorough risk assessment** before every job. If there is any risk of contact or proximity to power lines, **do not proceed.**



WARNING
ELECTROCUTION RISK (WEATHER): High-reaching poles act as lightning rods during electrical storms. In the event of a thunderstorm, **cease all work immediately.** Pack up all equipment and ensure that **no water-fed poles are raised above head height.**



CAUTION
SHORT CIRCUIT & COMPONENT DAMAGE: Directing water streams, or high-pressure washers at the control panel, voltmeter, or internal battery compartment creates immediate short-circuit hazards and permanently damages electrical controls. **NEVER** submerge or pressure-wash the trolley chassis.



Wire ID No.	Wire Colour	Connection Path	Function / Circuit
1	Red	Anderson Splitter Junction (Y) → 10A Panel Fuse → Switch (Pin 1 (+))	Switched Circuit Power Feed
2	Red	Battery (+) Terminal → 10A Battery Fuse → Anderson Splitter Junction (Y)	Primary Protected 12V (+) Battery Lead
3	Black	Anderson Splitter Ground Junction (Y) → Voltmeter (-)	Common Negative / Voltmeter Ground Lead
4	Black	Battery (-) Terminal → Anderson Ground Splitter Junction (Y)	Primary Battery Ground Lead
5	Black	Switch Terminal (Pin 3 (-)) 5 → Common Ground Rail (3)	Switch Indicator / Common Ground
6	Black	Ground Rail → Bullet Connector → V16 Controller Terminal	Main V16 Controller Negative Ground Feed
7	Red	Switch (Pin 2 (+))→ Voltmeter (+)	Switched Positive Feed to Voltmeter Display
8	Red	Switch (Pin 2 (+)) → Bullet Connector → V16 Controller	Switched Positive Feed to V16 Controller
9	Brown → Red	V16 Controller (9, Brown) → Bullet Connector → Pump Motor (9,Red)	Variable Speed (+) Positive Output to Pump
10	Blue → Black	V16 Controller (10, Blue) → Bullet Connector → Pump Motor (10, Black)	Controlled (-) Negative Return from Pump

Fault Symptom	Blown Fuse	Root Cause & Behavior
System runs when plugged into charger, but dies as soon as unplugged.	**Main Battery Fuse**	Battery line is open. The charger is powering the panel directly, but no power reaches the battery or comes from it.
Voltmeter displays voltage, but V16 controller and pump are completely dead.	**10A Controller Fuse**	Pump load overload or short circuit popped the inline 10A fuse. The main panel still has battery power, but the V16 is isolated
Nothing turns on at all (plugged in or unplugged).	**Both / Main Power Fault**	Main battery fuse blown AND charger disconnected, or main rocker switch/ground failure



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 or hose reel.
- **Kinked hose or blockage** in a pipe
- **Calibration settings** are too 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.



P5 – Pressure Switch

The appearance of the ‘P5’ 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 dead end section for possible reasons).
- Obstructed or small water jets, with a recommended minimum size of 1mm
- 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 which causes 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, Which 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.

- Verify all pump connections, ensuring each wire is firmly attached and the controller remains securely seated without any looseness.
- Inspection for physical damage, confirming that the cabling connecting the pump and controller remains intact and uncompromised.
- 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 7.5 A.

- 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.

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FaceLift®

Nomad 45 Litre Standard

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