

## Wynn's FuelSystemSERVE®+

Operating Manual



Product Name	Product Code	Ctn. Qty.
FuelSystemSERVE®+	68432	1
FuelSystemSERVE®	68436	1

#### **IMPORTANT**

We recommend you thoroughly read the instructions provided in this manual before switching on the device. This will enable you to obtain excellent performance and reliability over time. Store this manual close to the device for quick reference by operators. The manufacturer will not be liable for failures or other consequences deriving from incorrect procedures on the part of the user. No part of this manual may be reproduced in any form without prior written consent by the manufacturer. The manufacturer reserves the right to make improvements or changes in its instruments at any time and without prior notice. Other product names and companies mentioned in this document may be registered trademarks, registered by the respective owners.

The data concerning properties and applications of the indicated products are offered in good faith and are based on our research and practical experiences. Due to the versatility of the application possibilities, it is impossible to mention all details and we do not assume any obligations or responsibilities resulting from this. When a new edition appears due to the technical development, the preceding data are no longer valid.

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## 1.MAIN FEATURES

## 1.1 SPECIFICATIONS

Power Supply: 12V DC

Pump of Fuel system: Housing, metal parts - AISI 303 stainless steel/Gears -

Peek

Max flow: 30 litres/h

Max pressure: 10 bar @ 3450 rpm

**Filtration of liquid:** Inline filter(s) in injection (blue) return line

Volume of the tank for

**cleaning liquid:** 1.3 litres

**Dimensions:** 20 x 25.5 x 38cm

Weight:  $\sim 7 \text{kg}$ 

Operating temperature:  $+5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ 

#### 1.2 MACHINE PARTS

1 Treatment Tank

- 2 Pressure Gauge
- **3** Time Indicator
- 4 Selection Button
- **5** Pressure Regulator
- **6** Injection Connection Hoses
- **7** Battery Power Cables
- 8 Air Intake Cleaning Control Panel



\*note FuelSystemSERVE® (Product No. 68436) does not include air intake cleaning function

#### 1.3 FUELSYSTEMSERVE+® MACHINE COMPARISON TABLE

	Wynn's FuelSystemSERVE® (Product No. 68436)	Wynn's FuelSystemSERVE®+ (Product No. 68432)
Operates without disassembly of fuel system components.	<b>✓</b>	<b>✓</b>
Easy to connect and easy handling.	<b>✓</b>	<b>✓</b>
Fluid delivery can be adjusted to the degree of fouling and engine displacement.	1	✓
Operates via the vehicle's battery (12 V).	<b>√</b>	<b>√</b>
When the treatment is completed or product is consumed, the apparatus automatically stops and an alarm is activated.	<b>√</b>	✓
The machine can be switched off at any time during the treatment.	<b>✓</b>	<b>✓</b>
Completely closed tank, avoids escaping of cleaning liquid vapours.	<b>✓</b>	<b>✓</b>
Safety cap on tank with protection against under- and overpressure.	<b>✓</b>	<b>✓</b>
Cleans air Intake, manifold and valves.	×	<b>✓</b>

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## 2. SAFETY RECOMMENDATIONS

- Before every use, always consult the safety data sheet of products to be used.
- Always wear correct eye protection and gloves.
- Before starting the engine, check all hose attachments and pipework are clear of fan blades, pulleys, the exhaust system or other moving parts as well as other potential ignition sources.
- Never leave a vehicle unattended during the treatments.
- Perform all services in a well-ventilated area.

## 3. FUEL INJECTION SYSTEM CLEANING

#### 3.1 PREPARATION

- Ensure the engine is at a normal operating temperature.
- Protect the vehicle bodywork so the Fuel Injection fluid does not come into contact with the vehicle's paintwork. If the product is spilt on the paintwork, rinse immediately with water.
- With the engine stopped, open the bonnet and identify the fuel supply and return line.
- Locate viable points for connecting FuelSystemSERVE® to the injection system (preferably after the fuel filter and before the high-pressure pump).
- Disconnect the fuel fittings from the vehicle at the points where the FuelSystemSERVE® will be connected to the vehicle.
- Connect the FuelSystemSERVE® pressure supply tube (red) with the corresponding adapters supplied.
- Connect FuelSystemSERVE® return tube (blue) with corresponding adapters, if required.
- Link the vehicle's open fuel line connections (low pressure circuit) to form a return loop to the fuel tank.
- Connect FuelSystemSERVE® to the vehicle battery with the power cables supplied, to the correct terminal.
- Add the appropriate Petrol or Diesel cleaning product.

#### 3.2 OPERATION

- Ensure that the machine is placed on a level and stable surface.
- Rotate the Selection Button to define the preferred treatment time (the LED's on the Time Indicator will show the duration).
- For best results, if the treatment time is more than 45 minutes conduct the service over 2 treatments. This is to allow the cleaning product and equipment pump to not overheat.
- If using FuelSystemSERVE® + (Product No. 68432) ensure "continuous" mode is selected on top panel.
- Push the Selection Button and the pump will start operating.
- Select working pressure according to vehicle manufacturer's specifications by rotating the Pressure Regulator (the pressure in the Pressure Gauge will increase).
- Start the vehicle and leave to idle.
- Wait until the machine beeps (time is up or tank is empty).

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- Press the Selection Button and turn off the vehicle's engine and ignition system.
- Disconnect fuel hoses from the FuelSystemSERVE® and return the configuration of pipes and connections, of the vehicle, to their initial state.
- To empty the machine of any remaining fluid put the red hose with an open connection into an appropriate container. Purge the machine by pressing the Selection Button for 3 seconds.
- End of treatment.

For best results, it is important to install the supply and return hoses **after the fuel filter.** This way you prevent dilution of the Wynn's Injection liquids to ensure best cleaning results are achieved.

## **FUEL PRESSURES (GUIDE ONLY)**

PETROL		DIESEL	
K-jetronic	4 to 5 bar	In-line pump	1 to 2 bar
KE-jetronic	5.5 to 6 bar	Rotary Pump	1 bar
D-jetronic	2 to 3 bar	Rotary pump with electronic steering	2 to 3 bar
Multipoint Systems	3 bar	Common rail	2 to 3 bar
Monopoint systems	1 to 2 bar	Pump/injector unit	2 to 3 bar
Carburettor	0 to 0.5 bar		
Direct injection	3 bar		

#### 4. AIR INTAKE CLEANING

# - ONLY APPLICABLE FOR WYNN'S FUELSYSTEMSERVE®+ (PRODUCT 68432) 4.1 PREPARATION

- Protect the vehicle bodywork so the Air Intake Cleaner fluid does not come into contact with the vehicle's paintwork. If the product is spilt on the paintwork, rinse immediately with water.
- Ensure the engine is at a normal operating temperature.
- Identify the air intake manifold inlet. Important: Never connect before the Turbo or Intercooler.
- Remove the corresponding tube to allow access to the air intake manifold.
- If the Throttle Body Cleaning Tool contacts with the butterfly/throttle valve or collector, place an extension tube between the Throttle Body Cleaning Tool and the air intake manifold (maximum length of 50cm).
- It is important to reattach the air intake line to ensure smooth engine running and to avoid engine knock.
- Make sure the throttle body cleaning tool is well connected to the manifold to avoid additional air being introduced during treatment.
- Connect FuelSystemSERVE®+ to the vehicle battery with the power cables supplied.
- Add appropriate Wynn's chemical depending on the type of engine (diesel or petrol), into the FuelSystemSERVE®+ tank.

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#### **4.2 OPERATION**

- On the top control panel select Pulse Mode.
- Choose the duration of each pulse and delay combination by repeatedly pressing the selection button.
  - Short pulse (1 second) = treatment for 75-90 minutes (old and/or extremely fouled vehicles)
  - Long pulse (2 seconds) = treatment for 60 minutes (normal service)
  - Short delay is 15 seconds
  - Long delay is 30 seconds
- Disconnect the MAF-sensor to prevent EGR operation.
- Select treatment time on the front panel, by adjusting the start button.
- Start engine and increase engine RPM up to 1,500, but do not exceed 2000.
- Push start button to commence treatment and increase pump pressure on FuelSystemSERVE®+ to a maximum of five bar. Do not leave engine unattended during treatment.
- Exhaust smoke is normal during treatment
- Some engine knock is possible during treatment. To prevent engine knock:
  - Extend interval between pulses from 15 to 30 seconds
  - If knocking is severe the treatment should be interrupted and let the vehicle run at idle speed for 5 to 10 minutes. Then restart the treatment again
- The machine will emit a beep at the end of treatment.
- Let the engine run at idle for another 5 minutes after end of treatment with the Throttle Body Cleaning Tool still installed.
- Stop the engine.
- Disconnect Throttle Body Cleaning Tool from air intake.
- Restore the tubes to their original position and reconnect the MAF-sensor.
- Accelerate up to 2500rpm for 2 minutes.
- Carry out normal road test (do not drive hard for the 1st 15 km).
- Purge the machine of any remaining fluid by pressing the "START" button for 3 seconds.
- End of treatment.



## 5. TROUBLESHOOTING

Issue	Cause of error	Possible Solutions
Machine does not start.	Can indicate a problem with connection to the vehicle.	<ol> <li>Check cables, make sure they are well connected to vehicle's battery.</li> <li>Check power of battery, make sure it is fully charged.</li> </ol>
Machine refuses to operate.	Can indicate a fault of the level sensor.	<ol> <li>Check cables, make sure they are well connected to the vehicle.</li> <li>Check liquid level.</li> <li>If liquid level is ok and machine indicated an empty fluid tank, check position and connection of level sensor.</li> </ol>
High temperature.	Main pump temperature is over the safe limit.	<ol> <li>Reduce working pressure.</li> <li>During operating, please make sure this is in a well-ventilated area.</li> <li>Interrupt treatment for 15 minutes due to too high fuel temperature</li> </ol>
Green light on top of FuelSystemSERVE+® is flashing but red timer doesn't flash*.	Poles are incorrect.	1. Reverse battery cables on battery terminal.

## 6. MACHINE CLEANING AND MAINTENANCE

- The cleaning of the housing can be done with non-aggressive and non-abrasive cleaning products or water and a clean shop cloth.
- Be careful not to get any water or foreign fluids into the fluid tank.
- Clean and drain the adaptors and the adaptor hoses after use.
- Clean In-line filter if duration of services progressively increases over time.
- Clean up your work area where service is done to prevent injury.

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