Instruction manual
Smokerpump
(#61167-00)

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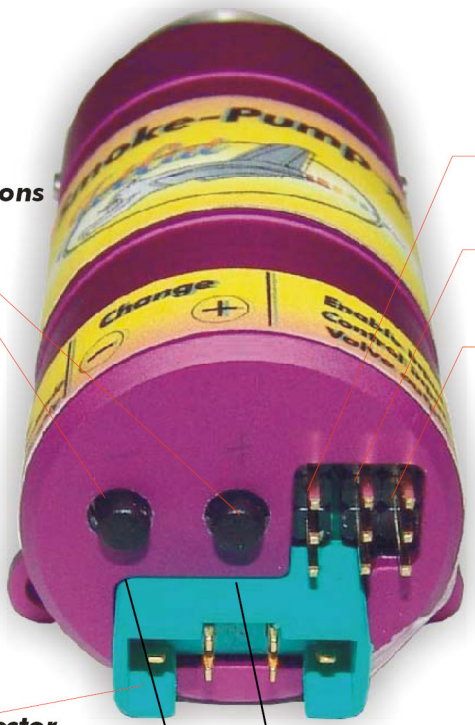


Programming buttons

Output for valve

Control input (receiver/ECU)

Enable input (ECU)

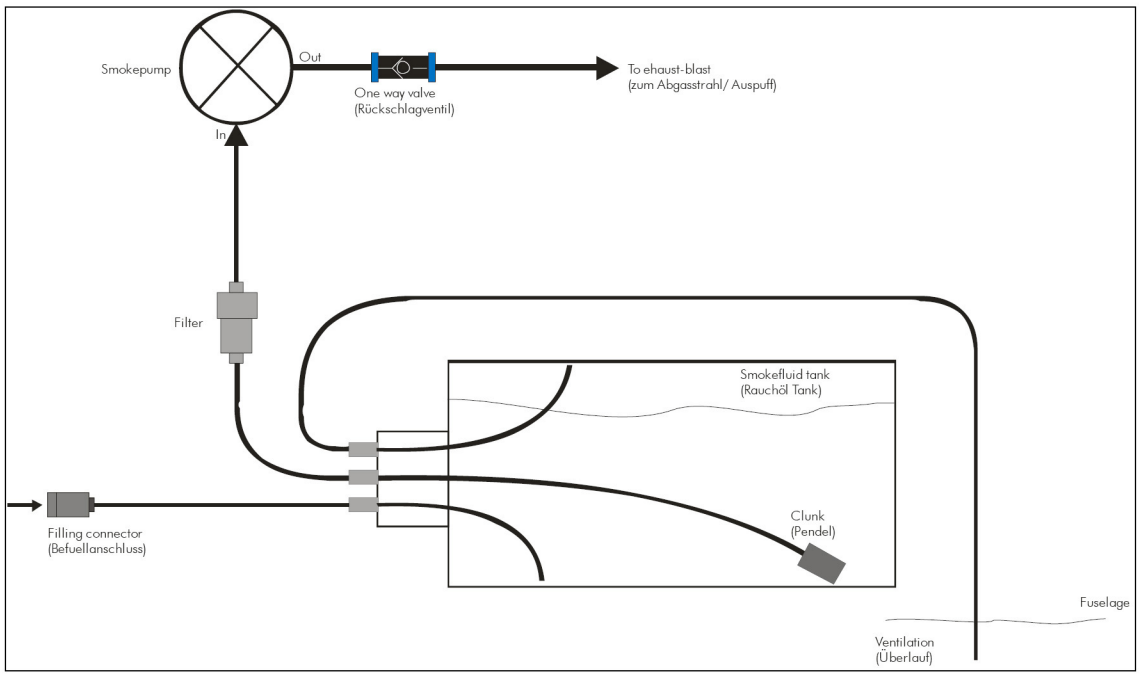
Battery connector

"+" button

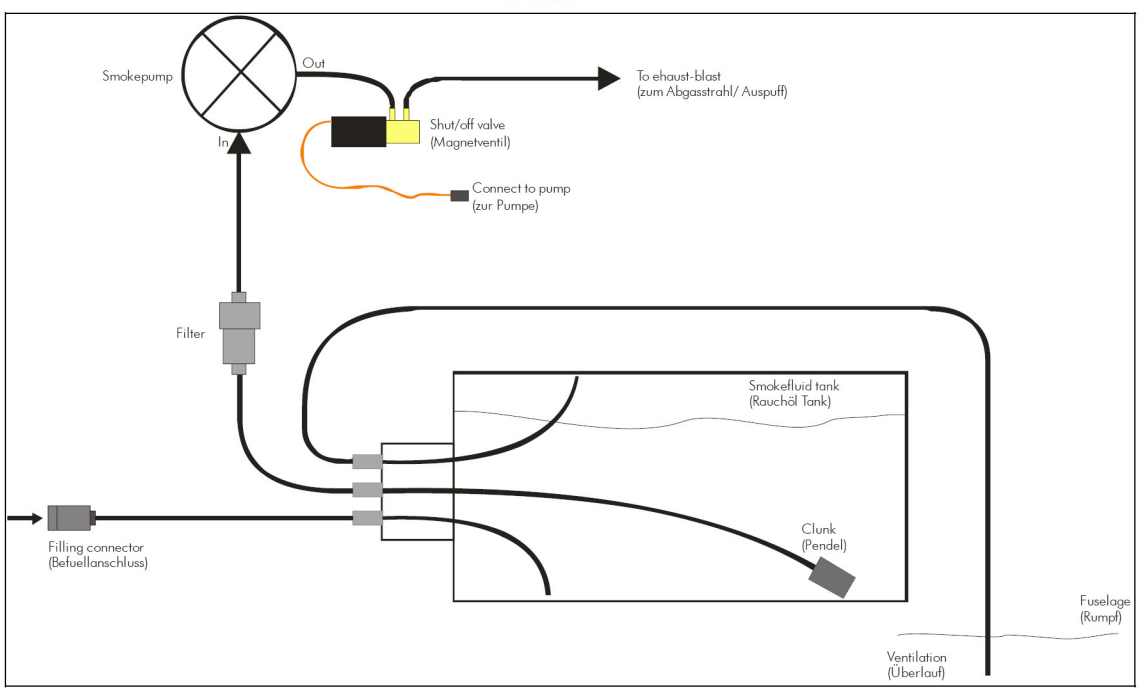
"-" button

Installation

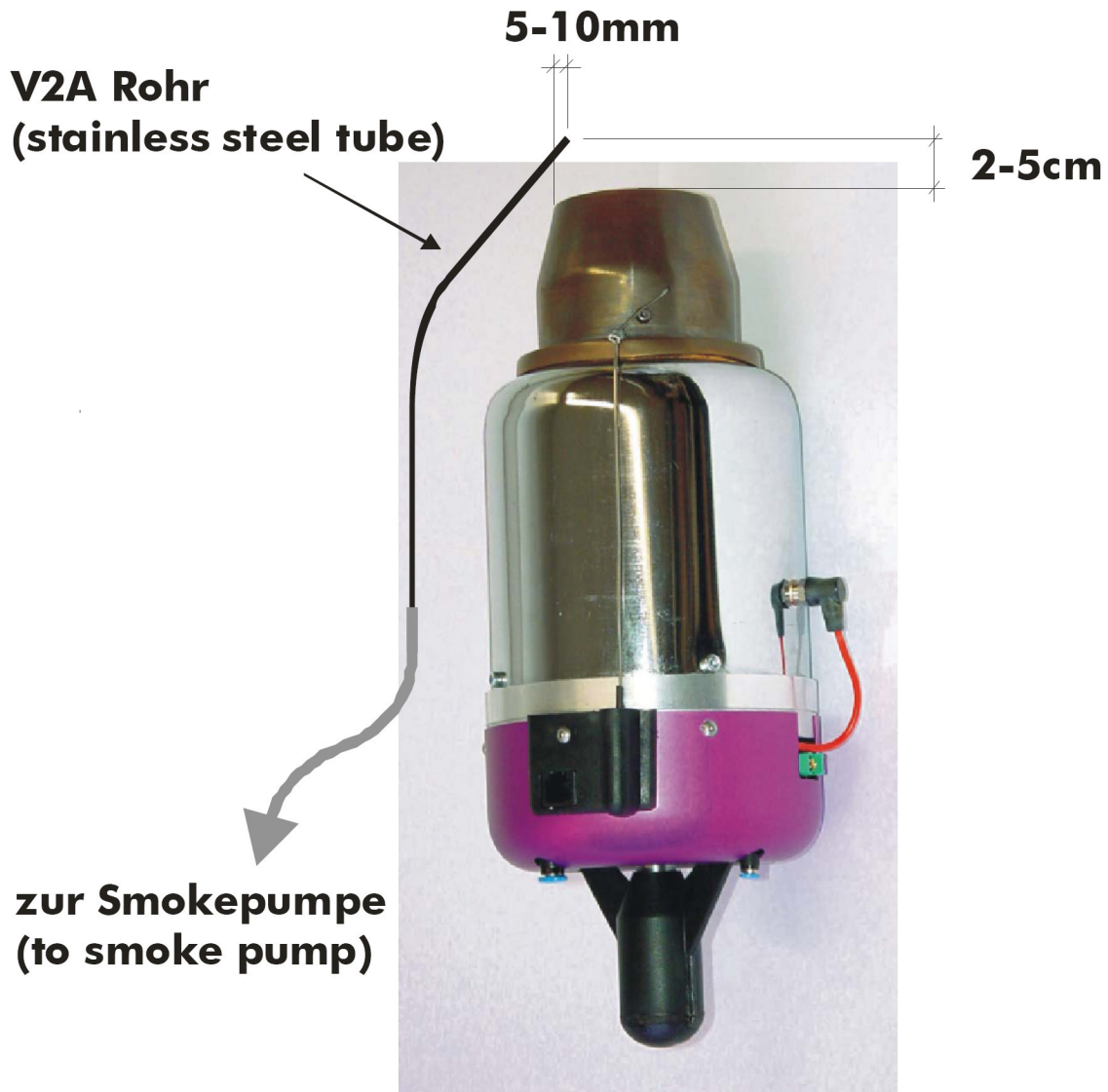
Installation without electromagnetic shut-off valve



Installation with electromagnetic shut-off valve



Installation on the engine



Operation modes

Rx-mode

In the Rx-mode the pump control is made via a free receiver channel. On the transmitter side a switch or slider can be used for the pump control. If a 3-position switch is used, two different pump power settings can be selected/set:
Position 1 = Off, Position 2 = small flowrate, Position 3 = high flowrate.
If a slider or similar is used on the transmitter side, proportional pump control is possible.

Attention: In this mode, the pump can be activated even if the turbine is not running.

Activate Rx-mode:

- Connect a free receiver output with the control-input of the pump (middle input) via the servo cable provided with the pump (the brown wire needs to point towards the green power input connector)
- Connect a battery to the pump (e.g. 7,2V NiCad).
- Switch on the RC-transmitter
- Press and hold the "+" button on the pump.
- Switch on the RC-receiver (keep the "+" button pressed) → Beep sound.
- Release the "+" button on the pump.
- Set the control on the RC transmitter (switch/slider) to the "Pump-Off" position.
- Press one of the two buttons on the pump briefly → Beep sound → the "pump OFF position" is now stored/memorized.
- Now set the conrol on the RC transmitter (switch/slider) to the "Pump full ON" position.
- Press again one of the two buttons on the pump briefly → Beep sound → the "pump ON position" is now stored/memorized.
- For now on the "Rx-Mode" is activated and the positions for "pump Off" and "Pumpe ON" are learned in and memorized. These steps only need to be repeated if the mode needs to be changed or the RC-transmitter position have changed (throw etc.)
- Set the conrol on the transmitter (switch/slider) to the "Pump-Off" position.

Change pump-power / flowrate:

After having activated the RX-mode, the pump power can now be changed/adjusted:

- Switch on the RC-transmitter and receiver, do not press any buttons on the pump!!!.
- Set the conrol on the transmitter (switch/slider) to a posion at which the pump just starts to run.
- Press both buttons on the pump briefly (this enables to change pump power settings in the next steps).
- With the "+" button the pump power can now be increased.
- With the "-" button the pump power can now be decreased.
- Set the conrol on the transmitter (switch/slider) to the posion at which the pump should run with maximum power.
- With the "+" button the pump power can now be increased.
- With the "-" button the pump power can now be decreased.
- All settings are automatically stored 0,5 seconds after a change has been made

ECU-mode

Using the "ECU mode" it is possible to control the pump via the "smoker valve" output on the ECU. In this mode the pump is only On/Off controlled, however the pump power in the "On" state can be freely programmed. In this mode inadvertent activating of the pump is almost impossible, in addition all ECU warning functions via the smoker output are provided.
Activation of the pump during normal operation (= turbine running) is made by via AUX channel (= 3-position switch) of the ECU (see also operating instructions of the ECU, the AUX channel must be enabled and programmed correctly on the ECU, see Limits menu section in the instruction manual of the ECU). Due to the safety advantages we recommend this operating mode.

Activate the ECU-mode

- Connect the "smoker-valve" output of the ECU with the control-input of the pump (middle input) via the servo cable provided (the brown wire needs to point towards the green power input connector)
- Connect a battery to the pump (e.g. 7,2V Nicad).
- Connect the GSU to the ECU, and switch on the RC-receiver
- Call up the "Test functions" menu with the GSU and select the parameter "Smoker-Valve Test"
- Now press and hold both buttons (+/-) on the pump simultaneously.
- Press and hold the "Change Value/ Item" button on the GSU → pump makes a Beep sound
- Release all buttons.
- For now on the "ECU-mode" is activated.
- If the "Change Value/ Item" button on the GSU now is pressed, the pump should start to run.

Change pump-power / flowrate:

After having activated the ECU-mode, the pump power can now be changed/adjusted:

- Press the "Change Value/ Item" button on the GSU (On the GSU the "test function" menu and the parameter "Smoker-Valve Test" must be selected, as described above).
- If the "Change Value/ Item" button on the GSU now is pressed, the pump should start to run
- When the pump is running, press both buttons on the pump briefly (this enables to change pump power settings in the next steps).
- With the "+" button the pump power can now be increased.
- With the "-" button the pump power can now be decreased.
- If you stop the pump by releasing the "Change Value/ Item" button on the GSU, it is necessary to press both buttons on the pump again (once it is running) to be able to change pump power via the pumps +/- keys.

ECU / Rx-mode

In the ECU/ Rx- mode, pump On/Off control is made via the "Smoker valve" output on the ECU. In addition to this the pump power can be controlled via a free receiver channel (like in the Rx-mode), however the ECU must enable the pump via the "Smoker valve" output. In this mode an inadvertent activating of the pump is prevented. That is, the pump power is set via a free receiver channel, however the pump can only run if the ECU sends an Enable signal though the "smoker valve" output (when the engine is running)

Activate ECU / Rx-mode:

- Connect a free receiver output with the control-input of the pump (middle input) via the servo cable provided with the pump (the brown wire needs to point towards the green power input connector)
- Connect a battery to the pump (e.g. 7,2V Nicad).
- Connect the "Smoker valve" output of the ECU with the "enable" input on the pump via a second servo cable.
- Connect a battery to the pump (e.g. 7,2V Nicad).
- Switch on the RC-transmitter
- Press and hold the "-" button on the pump.
- Switch on the RC-receiver (keep the "-" button pressed) → Beep sound.
- Release the "-" button.
- Set the control on the transmitter (switch/slider) to the "Pump-Off" position.
- Press one of the two buttons on the pump briefly → Beep sound → the "OFF position" is now stored/memorized.
- Now set the control on the transmitter (switch/slider) to the "Pump-full on" position.
- Press one of the two buttons on the pump briefly → Beep sound → the "ON position" is now stored/memorized.
- For now on the "ECU/Rx-mode" is activated and the positions for "Pump Off" and "Pump full ON" are learned in and memorized. These steps only need to be repeated if the mode needs to be changed or the RC-transmitter position have changed (throw etc.)
- Set the control on the transmitter (switch/slider) to the "Pump-Off" position.

Change pump-power / flowrate:

After having activated the ECU/RX-mode, the pump power can now be changed/adjusted:

- Connect the GSU to the ECU, and switch on the RC-receiver, do not press any button on the pump!
- Call up the "Test functions" menu with the GSU and select the parameter "Smoker-Valve Test"
- Press and hold the "Change Value/ Item" button on the GSU for the next steps (this sends the Enable signal to the pump).
- Set the conrol on the transmitter (switch/slider) to a posion at which the pump just starts to run.
- Press both buttons on the pump briefly (this enables to change the pump power settings in the next steps).
- With the "+" button the pump power can now be increased.
- With the "-" button the pump power can now be decreased.
- Set the control on the transmitter (switch/slider) to the posion at which the pump should run with maximum power.
- With the "+" button the pump power can now be increased.
- With the "-" button the pump power can now be decreased.
- All settings are automatically stored 0,5 seconds after a change has been made

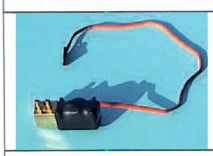
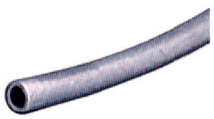
Important:
The pump can only run, if in the "Test functions" menu of the ECU the parameter "SmokerValve Test" is selected and the button "Change value/item" on the GSU is pressed! As long as the "Change Value/ Item" button on the GSU is pressed (that means the Enable signal is sent to the pump), the pump starts to run according to the setting of the switch/slider position of the control on the RC transmitter.

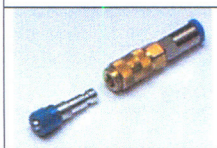
Technical Data

Dimensions	: D=28mm ; L=65mm
weight	: 94 grams
Flowrate	: 50-750ml/min
Pressure	: max. 5bar
Power supply	: 6-8 cells (7,2-9,6V)
Inputs	: 1x Control input from receiver or ECU 1x Enable input (from ECU)
Outputs	: 1x Control output for shut-off valve

Suitable accessory:

www.jetcatkorea.com

picture	Connections	Description	Order no.	Price/€uro Incl.16%VAT.
	2x female hose connector for 4mm tubing	Fuel/propane/smokerl Shut-off valve electromagnetic	61106-00	68,21
	2x female hose connector for 4mm tubing	Kraftstoff-Filter mit herausnehmbaren Filtereinsatz	21105-08	16,37
	Clunk for fueltank	Special clunk for bubble free fuel delivery	21105-09	13,05
	4mm ∅ outside 2.5mm ∅ inside	Fuel tubing 4mm transparent, PVC 2.5mm inner ∅	21100-15	1,97/ Meter
	4mm → 4mm 4mm → 3mm 3mm → 3mm	Festo fast connectors	21105-01 21105-06 21100-30	3,01 3,13 2,67
	M5 (inside)→ 4mm	Quick connector M5	21105-02	2,84
	M5 (outside) → 4mm	Quick connector M5	21100-34	2,84

	3 x 4mm	T- Quick connector	21100-28	6,21
	Quick coupling socket → M5 (außen)	Quick coupling socket self-shutting fits to 21105-04 / 21105-02)	21105-03	10,67
	tubing 4mm → Quick coupling socket	Coupling plug (fits to 21105-03)	21105-04	2,67
	M5 (außen) → female hose connector	female hose connector (e.g. for fuel tank)	21105-05	1,27
	2x tubing 4mm	Quick coupling connector complete	Consists of: 21105-03 21105-04 21105-02	16,37