

User's Manual















Type of the boilers

SLG Falcoll 24, 30, 44	heating.
SLG Falcon 24K	Wall hung condensing gas appliance for hot water central

SLG Falcon 24K	Wall hung condensing gas appliance for hot water central
SLG Falcon 36K	heating and for the production of domestic hot water.

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1. EXPLANATION OF SYMBOLS IN USER MANUAL AND SAFTY INFORMATION

1.1. EXPLANATION OF SYMBOLS



WARNINGS

The warnings in the text are marked with warning triangle and framed.

The required actions and consequences of those failure are included in the framed text.



IMPORTANT INFORMATION

Important information concerning people and surrounding objects (not dangerous warnings)



INSTRUCTION

Instructions how to operate the boiler.

1.2. IMPORTANT SAFETY INFORMATIONS



INSTRUCTION IN CASE OF GAS ODOUR

- Turn off the gas tap!
- Extinguish any open flames!
- Open doors and windows! Fresh the air in the room!
- Do not use electrical appliances which could be given off sparkle!
- Notify the gas supplier or if the error occured in the gas boiler please contact with the service expert of SL Group!

INSTRUCTION IN CASE OF SMELLING FLUE GAS LEAKING FROM THE BOILER

- Switch the boiler OFF!
- Open doors and windows! Fresh the air in the room!
- Contact with the service expert of SL Group!



DAMAGES CAUSED BY FAULTY HANDLING

Failures caused by improper handling may result personal injury and material demages.

The manufacturer does not take responsibility for demages due to improper handling.



Make sure your children do not handle the boiler!

Make sure only that person handles the boiler who can do it properly!



DANGERS CONSERNING GAS EXPLOSION

The maintain and work in your gas system is allowed only for the official SL Group's expert who has the special license.

THE BOILER INSTALLATION, HOW TO MOVE IT TO AN OTHER PLACE. THE BOILER AND ITS ENVIRONMENT

The boiler can be installed by official SL Group service expert only.

Do not change the fume pipes!

Do not obstruct the proper functioning of the safety equipments!

Do not store or use flammable materials (paper, thinner, paint) near the boiler!

2. Proper use of the boiler and certification

2.1. PROPER USE OF THE BOILER



The boiler can be installed only in a closed heating system.

The manufacturer does not take responsibility for any failure due to use the boiler in open heating system.

The boiler can be operated for domestic use only.

The boiler must not be used for producing industrial heat.

Information for the maximum/limited operating conditions contained in the book of "Installation and maintenance instructions" issued for the attention of service experts.

2.2. CE DECLARATION OF CONFORMITY

This product is - in its structure and operation - corresponding to the relevant European directives, which is certified CE certification.

The boiler was tested by the following standards and specifications:

LVD 2006/EC, EMC 2004/108/EC, PED 97/23/EC, GAD 2009/142/EC

2.3. BOILER TYPES

SLG Falcon 24, 36, 44	Wall hang condensing gas boiler for hot water central heating
SLG Falcon 24K	Wall hang condensing gas boiler for hot water central heating
SLG Falcon 36K	and domestic hot water producing with plate heat exchanger

2.4. AVOID THE DAMAGES COUSED BY FREEZ

If the boiler will not operate for longer time the heating system and the boiler must drain to avoid the damages coused by the freezing.

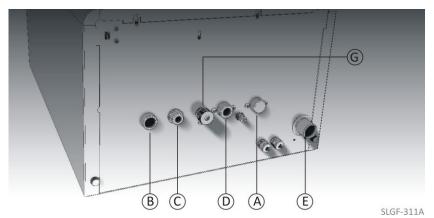
To draing the boiler and the heating system switch the boiler off and use the draing valve to empty the boiler. After the drain procedure close the drain tap and the gas tap.

Drain the heating system also.

3. BOILER HANDLING, USAGE

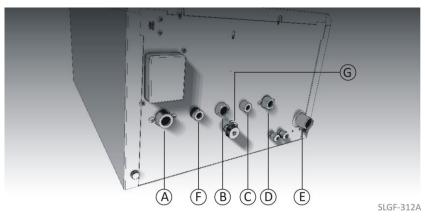
3.1. BOILER CONNECTIONS

SLG FALCON 24,36 HEATING BOILER



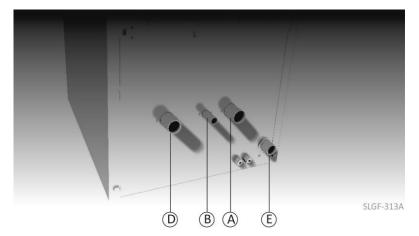
- A Heating flow connection (1")
- B Gas connection (3/4")
- C Cold water supply connection
- D Heating return connection (1")
- E Condensing water drain connection (Ø32)
- G Filling valve

SLG FALCON 24K, 36K HEATING - DHW BOILER



- A Heating flow connection (1")
- B Gas connection (3/4")
- C-Cold water supply connection (1/2")
- D Heating return connection (1")
- E Condensing water drain connection (Ø32)
- F DHW connection (1/2")
- G Filling valve

SLG FALCON 44 HEATING BOILER



A - Heating flow connection (1")

B – Gas connection (3/4")

D – Heating return connection (1")

E - Condensing water drain connection (Ø32)

3.2. Steps before switching on the boiler

CUT-OFF VALVES CONTROL



Check the cut-off valves at the boiler connections.

Make sure that they are open.

(In open status the arms of the ball-valves point to the flow direction)

WATER PRESSURE CONTROL OF THE HEATING SYSTEM

Check the heating system pressure, which is 1-1,2 bar in cold status depending on the size of the system.

Make sure that the pressure should not be higher than this value since the boiler is in operation and when the water temperature increases its pressure also increases.

If the pressure exceeds 3 bar in the boiler or in the heating system the built-in safety valve starts to operate and in order to reach the safety water pressure unload the water through the 'E' condensing water drain connector to reach the optimal pressure.



Make sure that the 'E' condensing drain connection leading the water to a safe area (f. exp. sewage).

If the system water pressure is low the refill is necessary.



Only the cold boiler allowed to be refilled with heating water.

The refilling into hot boiler results the failure of the appliance (cracking of the internal components).

These kind of damages are not covered by responsibility of the manufacturer and not

considered under warranty!

To refill the boiler use the ${}^\prime G{}^\prime$ filling valve situated on the bottom of the appliance.

The boiler maximum operating pressure is 3 bar. Be careful that this value is not allowed to exceed during filling.



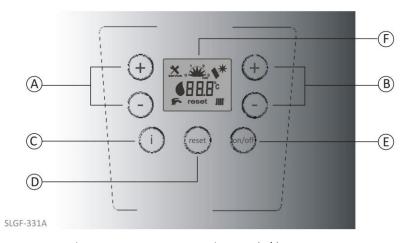
Make sure that the water pressure does not exceed the specified 1-1,2 bar during filling the cold appliance.

If the pressure exceeds 3 bar in the boiler or in the heating system the built-in safety valve starts to operate and in order to reach the safety water pressure unload the unnecessary water through the 'E' condensing water drain connector.

When the filling is finished close the filling valve!

3.3. CONTROL PANEL USAGE

OPERATING BUTTONS OVERVIEW



- A Domestic hot water temperature adjusting (+/-)
- B Heating water temperature adjusting (+/-)
- C Information
- D Reset
- E On/Off and operating mode changing button
- F Digital display

DIGITAL DISPLAY OVERVIEW



- A Domestic hot water operating mode
- B Burner output indicator
- C Service request (call your service partner)
- D Pressure indicator
- E Solar operation mode
- F Temperature indicator
- G Heating operation mode
- H Reset (press the Reset button)
- I Number / Code display

The digital display has a blue backlight.

The backlight turns on by pressing a button and turns off automatically after 15 seconds if you do not press any of the button.

OPERATING MODES, HANDLING



Status: OFF

Ignoring heat requests, except for domestic hot water and frost protection of heating. To activate the mode, press the 'E' marked button.



Status: STAND BY

In OFF status press the 'E' marked button to change to Stand by and chose from the following modes:

Winter: Domestic hot water and heating operation are allowed

Summer: Only the domestic hot water is allowed.



Room thermostat or OpenTherm controller unit are suitable to indicate the heating request for the boiler controller.

The sensors closing in room thermostat indicates the heat request for the controller.

In winter operation mode the display shows a possible status of a valid heat request.

If a higher priority request is received, the process is discontinued and the controller changes to serve the higher priority request.



Display in summer mode without heating request.

ADJUSTING THE TEMPERATURE OF THE HEATING WATER



Use the 'B' marked buttons to increase (+) or decrease (-) the temperature of heating water.

For pressing +/- buttons the display shows a flashing temperature indicator to help the adjustment of the needed temperature with 1°C accuracy.

After 5 seconds, if you do not press any of the 'B' buttons the display reverts to the starter status.



Use the 'A' marked buttons to increase (+) or decrease (-) the temperature of domestic hot water.

For pressing +/- buttons the display shows a flashing temperature indicator to help the adjustment of the needed temperature with 1°C accuracy.

After 5 seconds, if you do not press any of the 'A' buttons the display reverts to the starter status.

GAS BURNER AUTOMATIC TURNING ON

When the controller receives a real heating request the ignition of gas burner is started.

In case of ignition failure the controller attempts the re-ignition in specified numbers.

If all the ignitions are failed the display shows **E** I failure code.

INFORMATION BUTTON



For pressing 'C' information button the display shows the following data:

For single pressing of Information button the display shows the temperature measured by solar sensor.

For double pressing of Information button the display shows the temperature measured by outside temperature sensor

A possible status of the display.



The display status after pressing the Information button.

CONTROL MODE



Enter directly to the Control mode by pressing Information button for 10 seconds.

After selecting the Control mode the following sign appears on the display: """ "

In this mode you can get information about DHW temperature adjusting +/- by pressing 'A' button and about heating water temperature adjusting +/- by pressing 'B' button.

You can get information about the following parameters:



- Heating flow sensor temperature (00-125°C)
 Heating return sensor temperature (00-125°C)
- DHW sensor temperature (00-125°C)
- DHW sensor temperature (down tank 00-125°C)
- Solar collector sensor temperature (00-125°C)
- Flue gas sensor temperature (00-125°C)
- Outside sensor temperature (double-digit)
- Current speed of the fan (rpm x 10)
- Current system pressure
- Current flame intensity (uA x 10; between 00-99)
- Control panel software version

4. FAILURE CODES AND THEIR MEANINGS

4.1. FAILURE CODES REQUIRED USER'S INTERVENTION

On the display the failure codes required user's intervention are started with 'E'.

To unlock the failure codes press the reset button or contact with service expert of SL Group.



E01 - LACK OF FLAME

Lack of flame failure. The flame is not detected and all the retries are failed.

In this failure status the boiler does not operate, to restore the normal operation press the 'reset' button.



E02 – FAULTY FLAME INDICATION

The controller detects flame , but there is no real heat request (from the room thermostat or DHW side).

In this failure status the boiler does not operate, to restore the normal operation press the 'reset' button.



E03 – OVERHEATING PROTECTION

The heating flow or return sensor measures too high temperature.

In this failure status the boiler does not operate, to restore the normal operation press the 'reset' button.



E05 - FAN FAILURE

The controller does not receive valid signal from the fan.

In this failure status the boiler does not operate, to restore the normal operation press the 'reset' button.



E08 — FLAME CIRCLE FAILURE

The detected flame level is outside of the specified range which indicates a failure in either of electronic components.



E09 – GAS VALVE FAILURE

The controller receives invalid signal from the gas valve.



E12 - INTERNAL FAILURE

Intenal failure is occured.



E15 – HEATING FLOW SENSOR FAILURE

Press 'reset' button.



E16 – FAILED TEST OF THE HEATING FLOW TEMPERATURE SENSOR

Failed test of the heating flow temperature sensor.

Press 'reset' button.



E17 – FAILED TEST OF THE HEATING RETURN TEMPERATURE SENSOR

Failed test of the heating return temperature sensor.

Press 'reset' button.



E18 – FAILED TEST OF FAULTY SENSOR CONTROL

Press 'reset' button.



E21 - CONTROL BOARD FAILURE

The ADC test ended with failure. There is an electrical problem.



E33 — HEATING RETURN TEMPERATURE SENSOR FAILURE

The signal was given by the heating return temperture sensor is outside of the specified range.

In this status the heat requests are ignored.

If the temperature returns into the specified range the failure can be cancelled with 'reset' button.



E35 – HEATING FLOW TEMPERATURE SENSOR FAILURE

The signal was given by the heating flow temperture sensor is outside of the specified range.

In this status the heat requests are ignored.

If the temperature returns into the specified range the failure can be cancelled with 'reset button'.

4.2. FAILURE CODES RESULTING BOILER BLOCK



F07 – HIGH FLUEGAS TEMPERTURE

If the measured temperature drops below the adjusted value within 15 minutes, the appliance restarts.

The failure can be cancelled with unplugging in that case if the temperature returns into

	USER'S MANUAL	v1.0
	the specified range.	
F 13	F13 – UNPLUG THE BOILER Any attempt to cancel this error by pressing 'reset' is unnecessary. This failure can be cancelled by unplugging the boiler.	
F34 – LOW POWER SUPPLY If the boiler operates, the burner turns off. The failure is ended, if the voltage returns to the specified value (above 1)		
F37	F37 – Low WATER PRESSURE Check the pressure of the heating system. Only the cold boiler allowed to be refilled with heating water. The refilling into hot boiler results the failure of the appliance (cracking of the components). These kind of demages are not covered by responsibility of the manufacturer considered under warranty! To refill the boiler use the 'G' filling valve situated on the bottom of the appliance. The boiler maximum operating pressure is 3 bar. Be careful that this value is no to exceed during filling.	and not
F39	F39 – OUTSIDE SENSOR FAILURE If the value measured by the sensor returns into the normal range, the cancelled. The operation range for the sensor is between -40°C and 50°C. To cancel the failure the measured value has to be in the normal range.	failure is
F40	F40 – HIGH WATER PRESSURE Check the water pressure of the heating system. If this problem occured more times please contact with the service expert of SL G	iroup.
F41	F41 – THE FILLING VALVE OPERATES The boiler is under filling by the electronic filling valve.	
F42	F42 – FAILED FILLING After the filling the system pressure does not reach the specified value. Please contact with the service expert of SL Group.	
X 1/2 ²	F43 – LOW WATER PRESSURE AFTER AUTOMATIC FILLING	

After the automatic attempt for filling the water pressure remains low.

F47	F47 – WATER PRESSURE SENSOR IS NOT CONTACTED The water pressure sensor does not find the contact with the boiler. Please contact with the service expert of SL Group.
F50	F50 – DOMESTIC HOT WATER (SOLAR) SENSOR FAILURE To cancel the failure the measured value has to be in the normal range.
F5	F51 – SOLAR PANEL SENSOR FAILURE To cancel the failure the measured value has to be in the normal range.
F52	F52 – DOMESTIC HOT WATER SENSOR FAILURE To cancel the failure the measured value has to be in the normal range.
F53	F53 – FLUEGAS TEMPERATURE SENSOR FAILURE To cancel the failure the measured value has to be in the normal range.
FB 1	F81 – WAITING FOR SENSOR TESTING

5. MAINTENANCE

5.1. Periodic maintenance, inspection

The periodic maintenance and inspection of your appliance is very important in order to have the boiler in safety and reliable status. The maintenance has to be done by official service expert of SL Group.

5.2. TASKS DURING MAINTENANCE AND ISPECTION

Hereby you find the tasks have to be done during maintenance and inspection. These processes are very important for safety operation.

PRESSURE CONTROL OF THE EXPANSION TANK

Have to be checked that the expansion tank pressure corresponding to the specified value. This pressure value is between 0,8-1 bar. If the pressure is below the specified value the air have to be refilled.

In case of wrong/faulty expansion tank the system pressure may exceeds the safe value at high temperature which leads to the activation of safety valve. If this occurs, in the cold boiler the pressure may falls below the minimum level thus an electronic failure indicated on the display.

In case of faulty expansion tank it has to be changed.

ELECTRICAL WIRES AND CONNECTIONS CONTROL

Have to be checked the status of internal electrical wires, and their proper distance from any of hot spare parts.

Have to be checked the electrical connections at sensors, pump and the engine for three ways valve.

HEAT EXCHANGER CONTROL

In a well adjusted appliance the heat exchanger does not need any special maintenance.

Have to be checked the fume ways and if there are soot or subsidence it is neccessary to clean the whole heat exchanger.

The subsidences make more difficult for the fume to going out through the chimney, furthermore worsen the heat unload ability thus the efficiency of the heat exchanger reduces.

In case of smaller contamination it is enough to remove the burner and clean the fume ways of the heat exchanger through the burner slot. In this case make sure that the water can leak by the condensing syphon to the right place.

In case of huge contamination of the heat exchanger it could be taken out from the appliance. It is necessary to remove the condensing plate before the extensive cleaning of the whole heat exchanger.

Have to be checked the heat exchanger on water side.

The accumulated contaminations and scale in the heat exchanger reduce the cross section of flow and results lower cooling for the heat exchanger. It leads to cracking of the heat exchanger.

The failures due to the contaminations of the heat exchanger are not considered under warranty.

BURNING SYSTEM CONTROL

In a well adjusted appliance the burner system does not need any special maintenance.

Check the clearness of the fan.

CONDENSING SYPHON CLEANING

At the end of the maintenance (after the cleaning of the heat exchanger) the condensing syphon also has to be cleaned properly in order to be free way for leaking of condensing water produced during operation.

5.3. PROOF OF MAINTENANCE COMPLETION

To verify the periodic maintenance and inspection let's fill-in the below table by the service expert who services your appliance.

Gas boiler type:	SLG Falcon		Serial Nr.				
Date of completion of work	Verification of work	Checking the pressure of the expansion tank	Checking the electric wires and its connections	Checking the primary heat exchanger	Checking the burner unit	Cleaning out the condensing trap	Checking the possible leakages

6. SWITCHING OFF THE BOILER FOR LONGER PERIOD

If the boiler will not operate for longer time the heating system and the boiler must drain to avoid the damages coused by the freezing.

The stept of the swittching off for longer period:

Close the gas tap,

Drain the water from the heating system and from the boiler,

Close the tap of the cold water supply and the other taps also,

Switch the boiler off and unplug from the mains.

7. FIRST IGNITION OF YOUR BOILER, YOUR SERVICE CONTACT

Because of the needed maintenance, inspections and repairs to be done professionally please hereby note the contact details of the service expert of SL Group who installed your boiler. Furthermore please note the data of your appliance too.

Service expert name:	
Service company name:	
Phone Nr. 1:	
Phone Nr. 2:	
Boiler type:	
Installation date:	

8.	NOTES A	ND REMINDERS

9. THE PROTOCOL OF THE FIRST IGNITION

Owner / Operator:			
Name		Post code, town	
Phone/email		Street, nr.	
Thomeyernan .		Street, III.	
Boiler data:			
Boiler type			
Serial number	ï	Date of first ignition	
Installation place	Basement Upstair	Other	
Fumi outlet	☐ Twin pipes	Coaxial	system
	☐ Plastic ☐ Aluminium	Other	
	Full length meters	Elbow 90°	pcs
	Checking the fumi pipe system:		☐ yes ☐ no
	CO2 in the fume at maximal nomina	al power:	%
	O2 in the fume at maximal nominal	power:	%
Gas setting and fumi data	Used gas	propan bu	itan Fűtőérték kWh/m3
	Gas flow pressure	mbar	Gas pressure mbar
	Adjusted maximal nominal power	L. kW	Adjusted minimal nominal kW power
	Gas flow volume at maximal	2002 (200	Gas flow volume at minimal
	nominal power Fumi lost at maximal nominal	l/min	nominal power l/min Fumi lost at minimal
	power	%	power %
	CO at maximal nominal power	nnm	CO at minimal nominal power ppm
	Fumi temperature at maximal	ppm	power ppm Fumi temperature at minimal
	nominal power	°C	nominal power °C
	Measured maximal heating flow temperature	°C	Measeured minimal heating return temperature °C
	now temperature		return temperature C
Hydraulic system	Hydraulic changer, type		Additional expansion tank dimension / pressure
	☐ Circulation pump		
	Additional tank's parameter		
Modified software parame	pters		
Modified Software parallit		ginal value	New value
	Function Orig	ginal value	New value
	Function Orig	ginal value	New value
	Function Orig	ginal value	New value
	Function Orig	ginal value	New value
	Nation Assets	ginal value	
	Function Orig	ginal value	New value
	Function Orig	ginal value	New value

User's manual				
Other tasks done during the first ignition				
Electric connection checked: yes, no	Remark			
☐ Condensing trap filled up	☐ Air / Fumi measure done			
☐ Full working test done	☐ Tighten check at gas and water side			
Other remarks:				
The above mentioned detailed heating system tests done.	The owner / operator knows the useage of the boiler, knows the safety requirement and the operation of the boiler.			
Date:	The owner / operator has been remindend the importance of the usual maintenance.			
The first installation and tests done by				

Owner / Operator sign:

Send a copy of the Protocol to the SL Group Fűtéstechnika Kft!





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