

Please, read this manual
carefully before use!

Instruction



GASOLINE GENERATORS

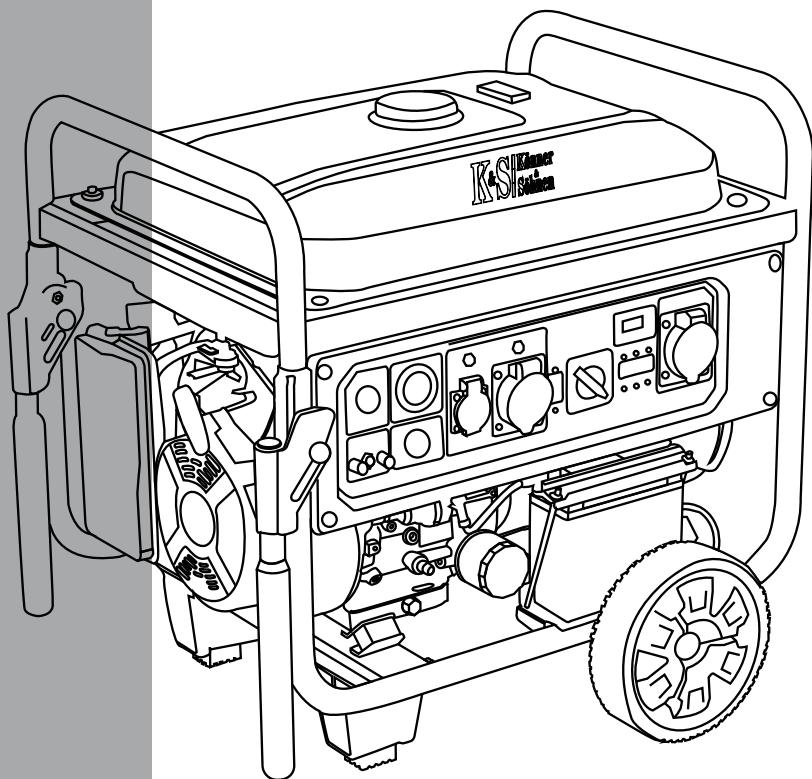
KS 12-1E ATSR

KS 12-1E 1/3 ATSR

TWO-CYLINDER GASOLINE GENERATORS

KS 15-1E ATSR

KS 15-1E 1/3 ATSR



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1. PREFACE

Congratulations on your purchase of the gasoline generator from **Könnner & Söhnen**. This manual contains safety instructions, a description of the use and commissioning of **Könnner & Söhnen** generators and procedures for their maintenance.

The generator manufacturer may make some modifications that may not be reflected in this manual. The manufacturer reserves the right to make changes in the product design, configuration and construction. The images and drawings in this manual are for reference only and may differ from the actual components and inscriptions on the products.

Contact information that you are free to use in case of any problems can be found at the end of this manual. All information in this manual is correct to the best of our knowledge and belief at the date of its publication.

The current list of service centers can be found on the official importer's website: www.ks-power.com.ua



WARNING - DANGER!



Please read this manual carefully before first use in order to ensure equipment integrity and avoid possible injuries.

ABBREVIATIONS:

KS	Könnner & Söhnen generator
E	Electric start
ATSR	ATS output for connecting an Automatic Transfer Switch unit
1/3	single- and three-phase generator

Please read this manual carefully. Pay particular attention to information that starts with characters/words: www.ks-power.de/en/



WARNING - DANGER!



Failure to observe the recommendation marked with this sign may result in serious injury or death to the operator or third parties.



PLEASE NOTE!



Useful information on the use of the device.

2.SAFETY PRECAUTIONS

2.1. WORK AREA

- The generator must not be used in premises with poor ventilation since exhaust gases contain poisonous carbon monoxide, which is life threatening!
- Do not use the generator in the rain, snow and high humidity. Do not touch the generator with wet hands and expose to direct sunlight for a long time. It is recommended to store and use the generator indoors or in well-ventilated premises.
- Always install the generator on a flat solid horizontal surface. The generator is equipped with dampers to reduce vibration during operation and avoid damage to the surface where the generator is installed.

- Do not use the generator near flammable gases, liquids or dust. During operation of the generator, its exhaust system becomes very hot. This may cause fire or explosion of these materials.
- Keep the work area clean and well lit to avoid injuries.
- Keep unauthorized persons, children and animals away from the running generator.
- Always wear protective shoes and protective gloves when operating the generator.



WARNING - DANGER!



The device generates electricity. Observe safety precautions to avoid electric shock.

2.2. ELECTRICAL SAFETY

- The wiring diagram for the generator must comply with the installation rules and applicable statutory requirements.
- All wiring connections of the generator must be carried out by a certified electrician in accordance with all electrical codes and regulations.
- Avoid the generator supply from the mains during restoration of the power supply.
- Avoid operating the generator in high-humidity environments. Do not allow moisture to enter the generator, as this increases the risk of electric shock.
- Avoid direct contact with grounded surfaces (pipes, radiators, etc.).
- Be careful when working with the power cord. Replace it immediately in case of damage, as damaged power cord increases the risk of electric shock.
- All connections of the generator to the mains must be carried out by a certified electrician.
- Connect the electric generator to the protective ground before operation using the terminal located on the generator control panel.
- Do not connect/disconnect the generator to/from power consumers while standing in water, on wet or damp soil.
- Do not touch live parts of the generator.
- Only connect the generator to the power consumers that correspond to the electrical specifications and power rating of the generator.
- Keep all electrical equipment dry and clean. Replace damaged or worn wiring. Worn, damaged, or rusted terminals must be replaced as well.

2.3. PERSONAL SAFETY

- Do not operate the generator when you are tired or under the influence of potent drugs, alcohol or medication. During operation, inattention can cause serious injury.
- Avoid inadvertent start-up. Make sure the power switch is set to "OFF" when turning off the generator.
- Do not operate the generator in areas with poor ventilation. Exhaust gases contain poisonous carbon monoxide, which is life threatening!



WARNING - DANGER!



Failure to comply with these requirements may result in fire or explosion of the generator, as well as fire in the building wiring.

- Make sure there are no foreign objects on the generator when it is turned on. Use the product for its intended purpose only. The generator customer using the device for other than the intended purpose shall be deprived of the right to free warranty repair. Do not sit, stand on the generator and misuse the equipment.
- Always keep proper footing and balance when starting the generator.
- Do not overload the generator, use it for its intended purpose only.

2.4. SAFETY PRECAUTIONS FOR GASOLINE GENERATOR OPERATION

Please note the following:

- Do not start the generator when it is under load.
- The generator must be installed at least 1 m away from explosive and flammable substances and objects since its engine heats up during operation.
- Do not fill the fuel tank when the engine is running.
- Do not smoke while refueling.
- Only unleaded gasoline is recommended for the generator. After filling the tank, remove all excess fuel from the surface. Do not use kerosene or other fuel. Otherwise, the engine may be damaged.
- Observe the fuel tank while filling in order to avoid overfilling.
- Do not touch the exhaust system after starting the generator and during its operation.
- Avoid operating the generator near water, in the rain or snow if there is a risk of it becoming wet.
- Before starting the generator, learn how to stop the generator in case of an emergency.



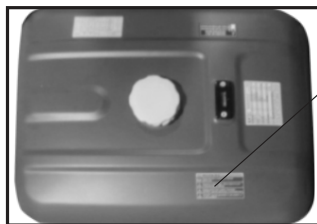
WARNING - DANGER!



Fuel pollutes soil and groundwater. Avoid gasoline leaking out of the fuel tank!

3. SAFETY SYMBOLS

DESCRIPTION OF SAFETY SYMBOLS FOR GENERATOR OPERATION



WARNING	
	Read operator's instruction manual before use.
	Gasoline is flammable. Allow engine to cool 2 minutes before refilling.
	Engine emits toxic carbon monoxide. DO NOT operate generator in enclosed area.
	DO NOT operate generator in wet weather, or in wet condition.

1



a



b



c



d

2



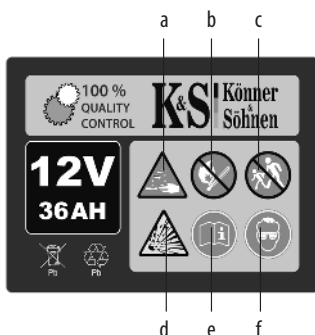
k

- Be careful when operating the device! Observe the safety instructions in this manual.
- Operate the generator only in well-ventilated indoor spaces or outdoors. Exhaust gases contain CO₂, whose vapors are life threatening.
- Do not operate or store the device in high-humidity environments.
- Do not smoke while operating the generator!
- The device generates electricity. Observe safety precautions to avoid electric shock.

- Read this owner's manual carefully before operating the device.
- Do not touch the generator with wet or dirty hands.
- Observe fire safety regulations, do not operate the generator near open flame.
- Frequency - 50 Hz
- Do not touch! The generator damper becomes hot during operation.

DESCRIPTION OF SAFETY SYMBOLS FOR BATTERY OPERATION

3



- Wear protective rubber gloves when handling the battery. The battery contains a dangerous acid electrolyte. If electrolyte comes into contact with skin or face, rinse immediately with plenty of water and seek medical advice.
- Do not operate the generator near open flame.
- Keep children away from the generator work area.
- Note! The battery releases explosive hydrogen while charging!
- Read this owner's manual carefully before operating the device.
- Wear safety goggles when operating the battery.

4. DESCRIPTION OF GENERATOR INSCRIPTIONS

APART FROM THE SAFETY SYMBOLS, THE GENERATOR CONTAINS THE FOLLOWING INSCRIPTIONS:

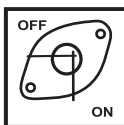
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Specifications chart. Specifications vary from model to model. For more information, see section "Generator Specifications".



Noise level is indicated.

The noise level varies with the model. For more information, see "Generator Specifications".



Indicates the position of the fuel valve.

"ON" - valve open

"OFF" - valve closed



Fuel level indicator.

The icon on the left indicates that the fuel tank is full, and the icon on the right indicates that the fuel tank is empty.



- Crankcase volume - 1.5 L

Oil recommendations

Recommended maintenance schedule Should be done every month or over a certain number of hours (depending on vehicle use)		Every start	First month or 20 hours	Every 3 months or 50 hours	Every 6 months or 100 hours
Motor oil	Check the level	X			
	Change		X	X	
	Check		X	X	
	Change				X
Air filter	Check				
	Change				X
Oil filter	Check		X	X	
	Change				X
Fuel tank	Check the level	X			
	Clean out		X	X	
Fuel filter	Check		X	X	
	Change				X

X Check out more often in dusty or dirty conditions 20 Maintenance should be done only by authorized personnel

* Clean out more often in a dusty conditions

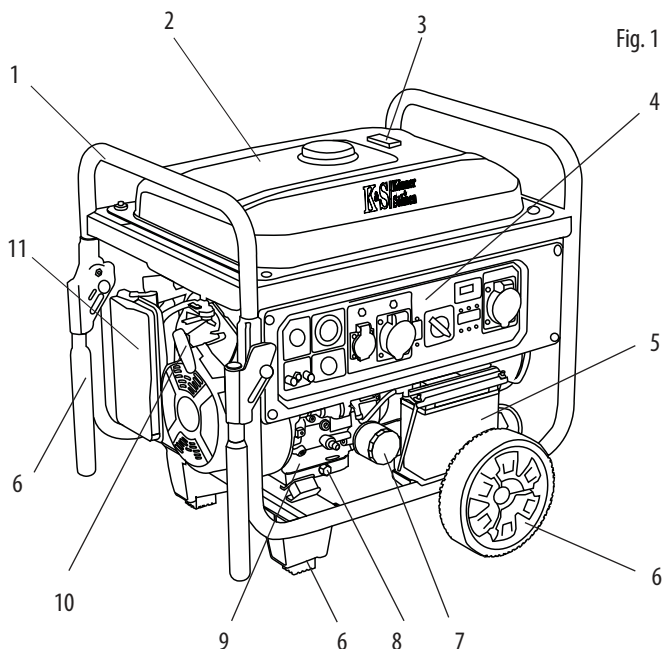
** Maintenance should be done only by authorized specialist.

Maintenance information in the language of the country where the generator is sold can be found in the "Maintenance" section.



Grounding

5. OVERVIEW AND COMPONENTS OF ONE-, TWO-CYLINDER GENERATOR



- | | |
|--|--------------------------------------|
| 1. Reinforced steel frame | 7. Oil filter |
| 2. Fuel tank | 8. Oil bleeder screw |
| 3. Fuel level indicator | 9. Engine |
| 4. Control panel | 10. Manual start for models KS 12-1E |
| 5. 12 V battery | ATSR, KS 12-1E 1/3 ATSR |
| 6. Transportation kit (wheels, support | 11. Filter |
| legs, handles) | |



PLEASE NOTE!



The manufacturer reserves the right to make changes in the product design, configuration and construction. Illustrations in this manual are for reference only and may differ from actual components and inscriptions on the products.

6. GENERATOR DELIVERY PACKAGE

1. Generator
2. Packaging
3. Owner's manual
4. Warranty card
5. Accessories

ACCESSORIES

1. 2x start keys;
2. 1x spark plug key
3. Transportation kit (wheels, support legs, handles, semi-axle)

1



2



Fig. 2

7. GENERATOR SPECIFICATIONS

Model	KS 12-1E ATSR	KS 12-1E 1/3 ATSR		KS 15-1E ATSR	KS 15-1E 1/3 ATSR	
Voltage (V)	230	230	400	230	230	400
Maximum power	9.2 kW	8.2 kW	11.5 kVA	12.5 kW	11.5 kW	15.6 kVA
Nominal power	9.0 kW	8.0 kW	11.25 kVA	12.0 kW	11.0 kW	15.0 kVA
Frequency (Hz)	50	50		50	50	
Max. current (A)	40	35	17	53	48	22
Outlets	1x63A (230V) 1x32A (230V) 1x16A (230V)	1x32A (400V) 1x32A (230V) 1x16A (230V)		1x63A (230V) 1x32A (230V) 1x16A (230V)	1x32A (400V) 1x63A (230V)	
Fuel tank volume (L)	55	55		55	55	
LED display	Operating hours, frequency, voltage, oil level					
Noise level Lpa (7m)/Lwa, dB	71/96	71/96		72/97	72/97	
Output 12V (A)	+	+		+	+	
Engine model	KS 650	KS 650		KS 780	KS 780	
Engine type	Gasoline powered one-cylinder, four-stroke air-cooled			Gasoline powered two-cylinder, four-stroke air-cooled		
Engine power (HP/kW)	18.5/13.6	18.5/13.6		22.0/16.18	22.0/16.18	
Generator emergency stop button	+	+		+	+	
Crankcase volume (cm3)	1.4	1.4		1.5	1.5	
Engine volume (cm3)	625	625		750	750	
Power output controller	Intelligent AVR					
Engine start	Manual/Electric	Manual/Electric		Electric	Electric	
Power factor (cosφ)	1	1	0.8	1	1	0.8
Battery (Ah)	21	21		36	36	
Net dimensions (L*W*H) (mm)	790x705x680	780x705x680		797x705x805	797x705x805	
Gross dimensions (L*W*H) (mm)	800x715x780	800x715x780		807x715x905	807x715x905	
Net weight (kg)	131	131		157	157	
Gross weight (kg)	145	145		165	165	
Protection class	IP23M					
Nominal voltage tolerance - max. 5%						

To ensure reliability and increase the engine service life, peak powers may be slightly limited by circuit breakers. The optimal operating conditions are ambient temperature of 17-25 °C, barometric pressure of 0.1 MPa (760 mm Hg), and relative humidity of 50-60%. Under these environmental conditions, the generator can provide maximum performance in terms of the declared specifications.

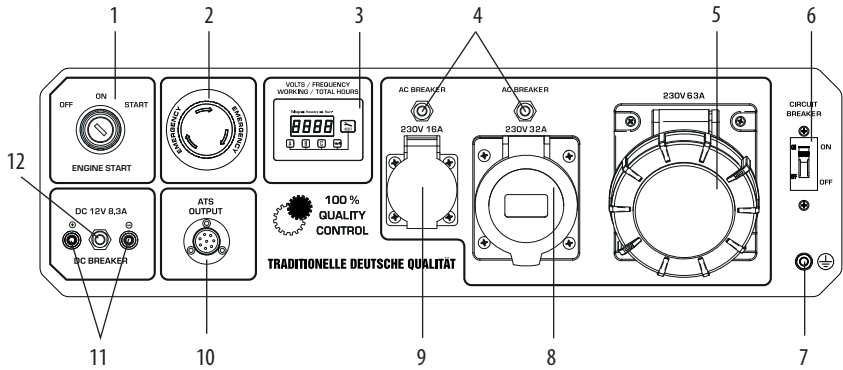
In the event of deviations from these environmental indicators, the generator performance may vary.

Please note that in order to preserve the long service life of the generator, continuous loads of more than 80% of the nominal power are not recommended.

8. CONTROL PANEL

For model KS 12-1E ATSR

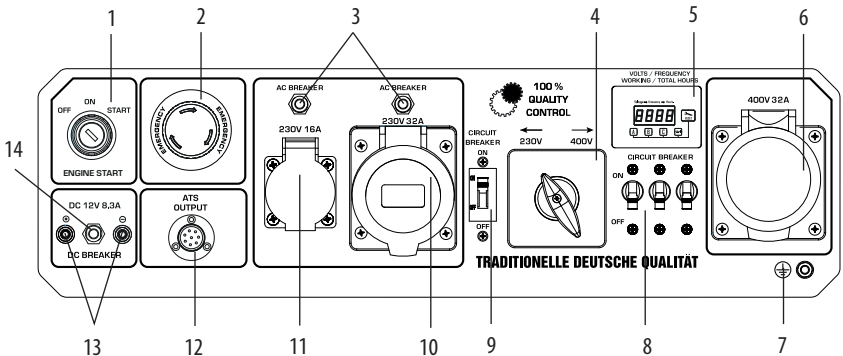
Fig. 3



- | | |
|--------------------------|----------------------------------|
| 1. Start switch | 7. Grounding |
| 2. Emergency stop button | 8. 32 A outlet (230 V) |
| 3. Wyświetlacz LED | 9. 16 A outlet (230 V) |
| 4. Circuit breakers | 10. ATS output (universal 8-pin) |
| 5. 63 A outlet (230 V) | 11. 12 V/8 A DC outlet |
| 6. 230 V circuit breaker | 12. Fuse for 12 V connector |

For model KS 12-1E 1/3 ATSR

Fig. 4

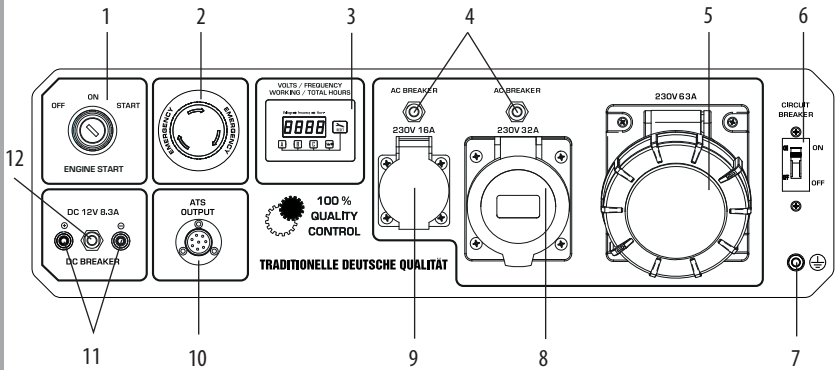


- | | |
|-------------------------------|----------------------------------|
| 1. Start switch | 8. 400 V circuit breaker |
| 2. Emergency stop button | 9. 230 V circuit breaker |
| 3. Circuit breakers | 10. 32 A outlet (230 V) |
| 4. Single-/three-phase switch | 11. 16 A outlet (230 V) |
| 5. LED display | 12. ATS output (universal 8-pin) |
| 6. 32 A outlet (400 V) | 13. 12 V/8 A DC outlet |
| 7. Grounding connector | 14. Fuse for 12 V connector |

CONTROL PANEL

For model KS 15-1E ATSR

Fig. 5

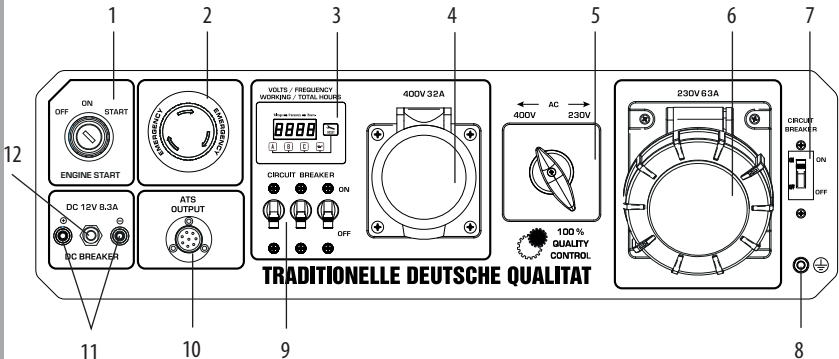


1. Start switch
2. Emergency stop button
3. LED display
4. Circuit breakers
5. 63 A outlet (230 V)
6. 230 V circuit breaker
7. Grounding

8. 32 A outlet (230 V)
9. 16 A outlet (230 V)
10. ATS output (universal 8-pin)
11. 12 V/8 A DC outlet
12. Fuse for 12 V connector

For model KS 15-1E 1/3 ATSR

Fig. 6



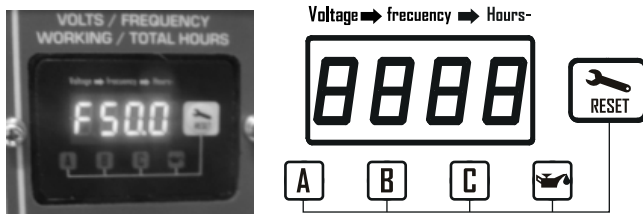
1. Start switch
2. Emergency stop button
3. LED display
4. 32 A outlet (400 V)
5. Single-/three-phase switch
6. 63 A outlet (230 V)

7. Circuit breaker
8. Grounding connector
9. 400 V circuit breaker
10. ATS output (universal 8-pin)
11. 12 V/8 A DC outlet
12. Fuse for 12 V connector

9. DIGITAL DISPLAY

The indicators on the display change cyclically.

Fig. 7



This mode displays the generator output voltage in volts.



This mode displays the generator output frequency in Hertz.



This mode displays the generator operation time from start-up in minutes.



Low oil level indicator.

10. COMMISSIONING

The generator is supplied without fuel. Before use, be sure to fill the fuel tank. Recommendations for refueling are listed below. The generator is supplied without motor oil. The generator crankcase may contain oil residues after factory tests. Be sure to add oil before use. Recommendations for oils and filling procedure are given below.

To commission the generator, follow the maintenance recommendations for the first month or twenty hours of operation (whichever comes first) contained in the "Maintenance" section.

11. CHECK BEFORE GETTING STARTED



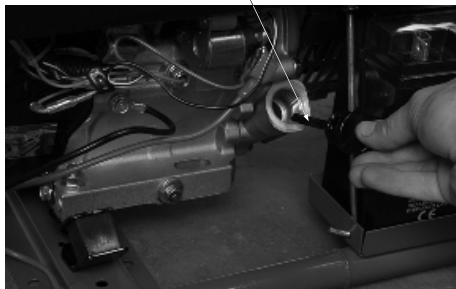
NOTE!



Be sure to carry out the following preparation before starting the generator:

Fig. 8

Oil dipstick



1. Check for fuel in the tank:
 - a) Wear protective gloves to avoid getting gasoline on your skin
 - b) Unscrew the fuel cap and check the fuel level in the tank.
 - c) Fill the fuel tank to the fuel filter level.
 - d) Tighten the fuel cap securely.

The fuel level is displayed on the fuel level sensor on the tank.

2. Checking the oil level (Fig. 8)
 - a) Pull out the oil dipstick and wipe it clean.
 - b) Insert the dipstick into the oil crankcase.
 - c) Pull out again and check the oil level by a mark on the oil dipstick.
 - d) The oil level should be at the level of the oil filler neck.
 - e) If necessary, add or drain oil.

3. Check the battery charge, charge the battery with an external charger (not included) if necessary. The battery is automatically charged while the generator is running.

4. If you have any questions, contact the manufacturer's authorized representative or an authorized dealer in your area.



PLEASE NOTE!



**Only unleaded gasoline is recommended for the generator.
Using other fuels may cause damage to the engine.**

12. ENGINE START



WARNING - DANGER!



Before starting the engine make sure that the total power of tools or power consumers corresponds to the rated power of the generator. Do not exceed the nominal power of the generator. Do not connect any devices before you start the engine!

NOTE! Do not use in single-phase and three-phase mode at the same time

Before connecting any devices to the generator, make sure that they are in good working order. If the connected device suddenly stopped or failed, immediately de-energize the device using the emergency switch, disconnect the device and check it out.



WARNING - DANGER!



**Do not connect two or more devices at a time.
The start-up of many devices requires high power.
Devices should be connected one at a time according to their power rating.
Do not connect any power consumers within the first 3 minutes after the generator has been started.**

12.1. GASOLINE GENERATOR ENGINE START

1. Move the fuel valve to the "OPEN" position.
2. Turn the key to the START position and hold it in this position for a few seconds until the engine starts.

Fuel valve



Closed



Open

Fig. 9

12.2. ATS System

Generators are equipped with a universal ATS output for connecting an Automatic Transfer Switch unit.

The ATS system allows the generator to be automatically stopped in the event of power outage and then automatically started when the power supply is restored without user intervention.

ATS output

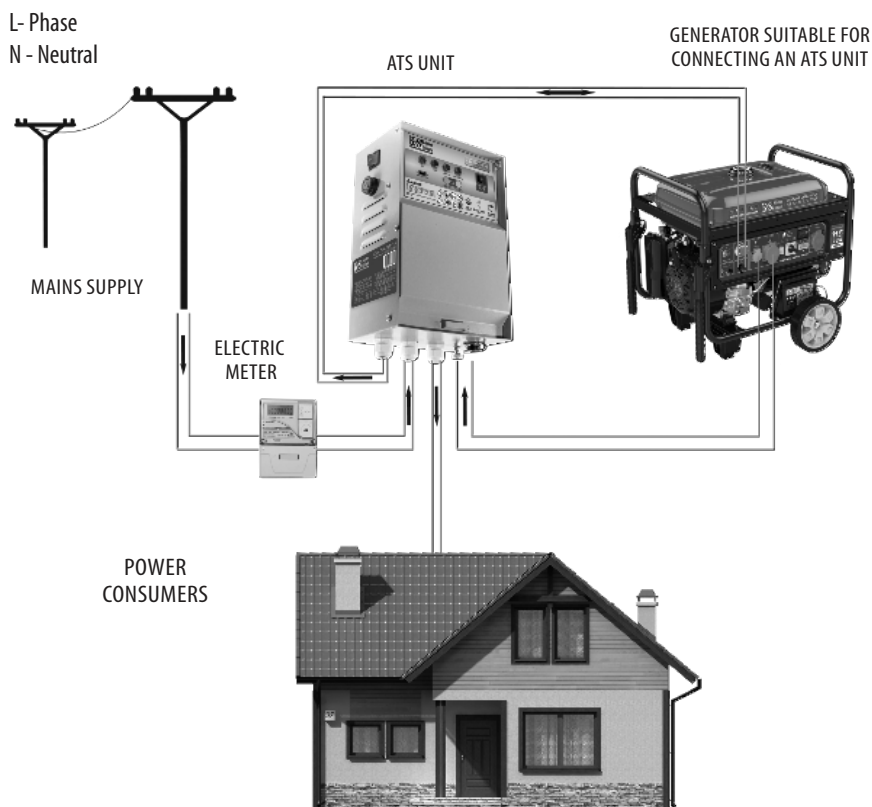


Fig. 10

13. CONNECTING THE GENERATOR AND ATS UNIT TO THE MAINS SUPPLY

Diagram for connecting the generator and ATS unit to power consumers and mains supply

Fig. 11



NOTE!
ELECTRIC SHOCK HAZARD!



Connection to the mains supply should only be carried out by a qualified professional

14. ENGINE STOP



PLEASE NOTE!



Disconnect all devices before stopping the generator!
Do not stop the generator if it has any devices connected to it.
This may disable the generator!

TO STOP THE GASOLINE GENERATOR:

1. Disconnect all power consumers from the generator, set the circuit breaker to the "OFF" position.
2. Allow the generator to operate at idle for 1-2 minutes for the alternator to cool down.
4. In case of manual start – set the engine switch to "OFF" position.
5. In case of electric start, turn the key to "OFF" position.
4. Move the fuel valve to the "CLOSE" position.

15. MAINTENANCE

Maintenance work listed in section "Maintenance" should be performed on a regular basis. If you cannot perform maintenance work on your own, please contact the authorized service center to request the required maintenance work.



PLEASE NOTE!



The manufacturer shall not be liable for any damage caused by failure to perform maintenance work.

Such damage also includes:

- Damage resulting from the use of non-original spare parts;
- Corrosive damage and other effects of improper storage of equipment;
- Damage caused by maintenance work performed by unskilled technicians.

You can find a list of service center addresses on the website of exclusive importer: **www.ks-power.de/en**

Follow the instructions in this manual!

The generator must be maintained, operated and stored in accordance with the instructions in this manual. The manufacturer shall not be liable for damage and loss caused by failure to comply with safety and maintenance regulations.

This primarily applies to the:

- Use of lubricants, fuels and motor oils not authorized by the manufacturer;
- Technical changes to the product;
- Misuse of equipment;
- Indirect losses caused by operation of the product with defective parts.

16. RECOMMENDED MAINTENANCE SCHEDULE

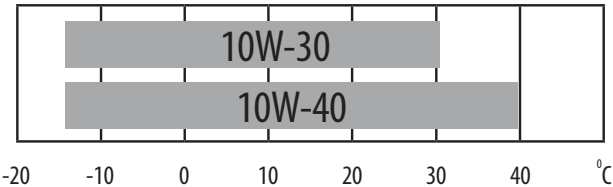
Unit	Action	At each start	Every month or 20 operating hours	Every 3 months or 50 operating hours	Every 6 months or 100 operating hours
Engine oil	Level check	✓			
	Replacement		✓	✓	
Air filter	Cleaning		✓	✓	
	Replacement				✓
Oil filter	Cleaning				
	Replacement				✓
Fuel tank	Level check	✓			
	Cleaning		✓		✓
Fuel filter	Cleaning				
	Replacement				✓

17.RECOMMENDED OILS

Motor oil significantly affects the engine performance and is the main factor that determines its service life. Use oil intended for four-stroke engines, as it contains detergent additives that meet or exceed the SG standards according to the APE classification (or equivalent).

Generally, it is recommended to use oil with a viscosity of SAE10W-30, SAE10W-40. Motor oils with a different grade shown in the table can be used only if the average air temperature in your area does not fall outside the specified temperature range. SAE oil viscosity or oil service category is indicated on the APE tank label.

Fig.12



REPLACING OR ADDING MOTOR OIL

If the oil level drops, fresh oil must be added to ensure proper operation of the generator. Check the oil level according to the maintenance schedule.

To drain oil, proceed as follows:

1. Wear protective gloves to avoid getting oil on your skin.
2. Place the waste oil tank under the oil bleeder screw (see Fig. 13).
3. Loosen the screw under the engine with a wrench.
4. Wait for the oil to drain.
5. Replace the drain cap and tighten securely.
6. It is better to drain oil while the engine is still hot after operation to ensure quick and complete oil draining.

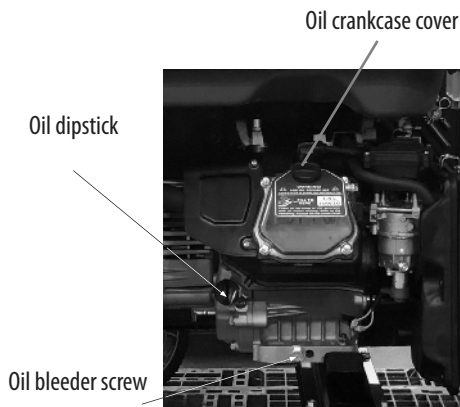
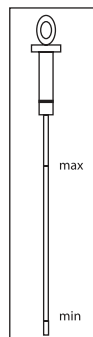


Fig. 13



To add oil, proceed as follows:

1. Wear protective gloves to avoid getting oil on your skin.
2. Make sure the generator is mounted on a flat, level surface.
3. Unscrew the oil crankcase cover on the back of the generator (see figure above).
4. Use a funnel to fill the crankcase with high-grade oil. The funnel is not included.
5. Check the oil level with the oil dipstick (Fig. 13). After filling, the oil level must be within the max and min marks.



WARNING - DANGER!



Oil pollutes soil and groundwater. Avoid oil leaking out of the crankcase. Dump used oil into the sealed container. Hand over used oil to waste oil collection point.

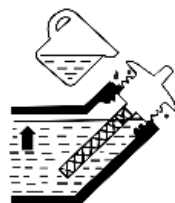


Fig. 14

18. AIR FILTER MAINTENANCE

The air filter should be checked for contamination from time to time. Regular maintenance of the air filter is necessary to maintain sufficient air flow in the carburetor and normal carburetion, which in turn ensures fuel economy.



Fig. 15

Cleaning the filter:

1. Open the clips on the top cover of the air filter.
2. Remove the filter element.
3. Remove all dirt inside the empty air filter housing.
4. Clean the filter element.
5. Replace the filter element.
6. Close the air filter cover.

19. OIL FILTER MAINTENANCE



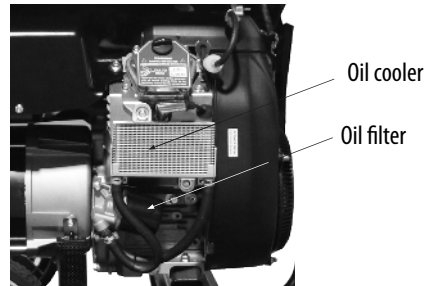
PLEASE NOTE!



The air filter must be replaced every 100 hours of operation of the generator (in conditions of increased pollution every 20 hours).

Fig. 16 shows the arrangement of the oil filter for generator models KS 12-1E ATSR, KS 12-1E 1/3ATSR

Fig. 16



For generator models KS 12-1E ATSR, KS 12-1E 1/3ATSR, the oil filter is located on the front of the generator below the control panel.

20. BATTERY OPERATION

The generator battery is maintenance-free. If the generator has not been used for a long time, the battery may fail. To extend battery life, it is recommended that you recharge the battery with an external charger (not included) every three months.

Use protective gloves when handling the battery. The battery contains a dangerous acid electrolyte. If electrolyte comes into contact with skin or face, rinse immediately with plenty of water and seek medical advice.

The battery is covered by a 3-month warranty from the date of purchase of the generator.

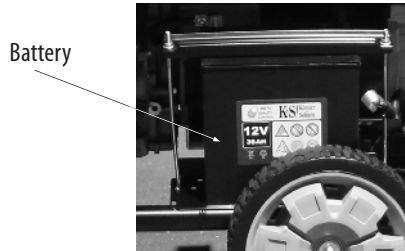


Fig. 17

21. SPARK PLUGS MAINTENANCE

A spark plug is an important element that ensures proper engine operation. It must be intact, properly gapped and free of deposits.

To inspect the spark plug, proceed as follows:

1. Remove the spark plug cap.
2. Unscrew the spark plug with the appropriate wrench.
3. Visually inspect the spark plug. If the spark plug is damaged, it must be replaced. It is recommended to use the F7RTC spark plug.
4. Measure the gap. It should be in the range of 0.7 – 1.0 mm.
5. Before re-using the spark plug, it must be cleaned from deposits with a metal brush. After that, set the correct gap.
6. Screw in the spark plug back with the dedicated spark plug wrench.
7. Replace the spark plug cap.

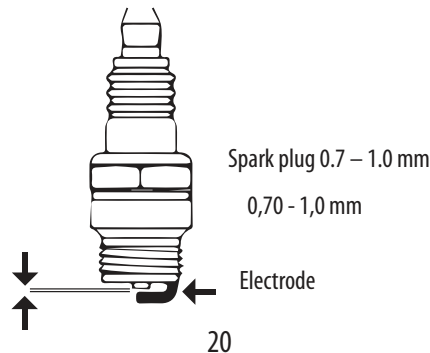


Fig. 18

22. GENERATOR STORAGE

The generator must be stored in a dry, well-ventilated area that is free from dust. Keep away from children and animals. It is recommended to store and use the generator at a temperature of -20 to +40 °C. Do not expose the generator to direct sunlight and precipitation

Note! We recommend that you keep the generator in good working order at all times. Any malfunctions in the generator must be repaired before placing the generator in storage.



PLEASE NOTE!



**Before long-term storage of the generator when the engine is running, close the fuel valve of the fuel tank and allow the engine to work gasoline out of the carburetor.
Wait until the engine stops.**

In case of lengthy generator downtime, observe the following conditions:

- External parts of the generator and engine, especially cooling fins, must be thoroughly cleaned.
- Unscrew the carburetor float chamber screw, empty the chamber.
- Remove the spark plugs.
- Add a teaspoon of engine oil (5 – 10 ml) to the cylinder. After that, pull the starter cord several times for 1-2 seconds so that the oil spreads along the cylinder walls.
- Replace (screw in) the spark plug.
- Remove the battery terminals. Grease the battery and connection terminals with anti-oxidation grease.
- Unscrew the oil drain screw and drain the oil.

23. GENERATOR TRANSPORTATION

For convenient transportation of the generator, use the original packaging of the generator. Secure the generator packaging to prevent the generator from tipping over during transportation. Before transporting the generator, drain the fuel and disconnect the battery terminals.

Be careful when handling the heavy generator (approx. 170 kg).

24. GENERATOR AND BATTERY DISPOSAL

To prevent damage to the environment, do not dispose of the generator and battery in normal household waste. Dispose of the generator and battery in the safest way by handing them over to dedicated waste collection points.

25. TROUBLESHOOTING

Fault	Probable cause	Remedy
Engine will not start	The engine start key (button) is set to the OFF position	Set the engine start key (button) to the ON position
	The fuel valve is set to the "CLOSE" position	Move the fuel valve to the "OPEN" position
	Air choke is open	Close the air choke lever
	Fuel tank is empty	Fill in the fuel tank
	Fuel tanks contains dirty or used fuel	Replace fuel in the fuel tank
	Spark plug smoked or damaged; wrong distance between electrodes	Clean the spark plug or replace it with a new one; set the correct distance between the electrodes
Reduced engine power / troubled engine start	Fuel tank is dirty	Clean the fuel tank
	Air filter is dirty	Replace the air filter
	Water in fuel tank and/or carburetor; clogged carburetor	Empty the fuel tank, fuel line and carburetor
	Wrong distance between spark plug electrodes	Set the correct distance between the electrodes.
Engine overheating	Cooling fins are contaminated	Clean the cooling fins
	Air filter is dirty	Clean the air filter
Engine starts, but no output voltage	Circuit breaker tripped	Set the circuit breaker to ON
	Connection cables of poor quality	Check cables for normal operation; replace, if extension cable is used
	Faulty connected device	Try connecting another device
Generator works, but does not support connected electrical devices	Device overload	Try connecting fewer devices
	Short circuit of one of the connected devices	Try disconnecting the faulty device
	Air filter is dirty	Clean the air filter
	Insufficient engine speed	Contact the service center

26. AVERAGE POWER CONSUMPTION OF DEVICES

Device	Power (kW)
Iron	500-1100
Hair dryer	450-1200
Coffee machine	800-1500
Electric cooker	800-1800
Toaster	600-1500
Heater	1000-2000
Vacuum cleaner	400-1000
Radio	50-250
Grill	1200-2300
Oven	1000-2000
Fridge	100-150
TV set	100-400
Perforator	600-1400
Drill	400-800
Freezer	100-400
Grinder	300-1100
Circular saw	750-1600
Crank gear	650-2200
Jigsaw	250-700
Planer	400-1000
Compressor	750-3000
Water pump	750-3900
Bench saw	1800-4000
Electric mower	750-3000
Electric motors	550-5000
Fans	750-1700
High pressure unit	2000-4000
Air conditioner	1000-5000

27. WARRANTY PROVISIONS

The international manufacturer warranty is 1 year. The warranty period starts from the date of purchase. In cases when warranty period is longer than 1 year according to local legislation please contact your local dealer. The Seller which sells the product is responsible for granting the warranty. Please contact the Seller for warranty. Within the warranty period, if the product fails because of defects in the production process, it will be exchanged on the same product or repaired.

The warranty card should be kept throughout the warranty period. In case of warranty card loss, a second one will not be provided. The customer must provide the warranty card and buyer's check during request for repair or exchange. Otherwise, the warranty service will not be provided. The warranty card, attached to the product during sale, should be correctly and fully completed by the retailer and customer, signed and stamped. In other cases, warranty is not considered as valid.

Provide clean product to the service center. Parts, that must be replaced, are the property of the service center.

WARRANTY DOES NOT COVER:

- If the user has failed to comply with the instructions in this manual.
- If the product features damaged or missing identification stickers or labels, serial numbers, etc.
- If product malfunction was due to improper transportation, storage and maintenance.
- In case of mechanical damages (cracks, chips, impact and fall marks, deformation of housing, power cord, plug or any other components), including those resulting from the freezing of water (ice formation), provided there are foreign objects inside the unit.
- If the product has been improperly installed and connected to the mains supply or misused.
- If the claimed malfunction cannot be diagnosed or demonstrated.
- If proper operation of the product can be restored following cleaning from dust and dirt, appropriate adjustment, maintenance, oil change, etc.
- If the product is used for business related purposes.
- If faults are detected, which have been caused by product overload. Signs of overload are molten or discolored parts as a result of high temperatures, damaged cylinder or piston surfaces, degraded piston rings or connecting rod bushes.
- The warranty does not cover the failure of the product automatic voltage regulator due to careless handling or mishandling.
- If faults are detected, which have been caused by instability of the user's power grid.
- If there are faults caused by contamination or fouling such as contamination of the fuel, oil or cooling system.
- If electrical cables or plugs show signs of mechanical or thermal damage.
- In the event of foreign liquids and objects, metal chips, etc. inside the product.
- If the malfunction is caused by the use of non-original spare parts and materials, oils, etc.
- If there are two or more faulty units that are not interconnected.
- If the damage was caused by natural factors such as dirt, dust, humidity, high or low temperature, natural disasters.
- To quick-wear parts and components (spark plugs, nozzles, pulleys, filter and safety elements, batteries, removable devices, belts, rubber seals, clutch springs, axles, manual starters, oils, gear).
- To preventive maintenance (cleaning, greasing, washing), installation and adjustment.
- If the product was tampered with, independently repaired or modified.
- In case of malfunctions resulting from normal wear and tear as a result of long-term use (end of life).
- If product operation was not stopped and continued after detecting a malfunction.
- Batteries supplied with equipment are covered by a warranty of three months.



EC Declaration of Conformity

Nr. 047

The following products have been tested by us with the listed standards and found in compliance with the European Community Machinery Directive 2006/42/EC, Low Voltage Directive 2014/35/EC, Electromagnetic compatibility Directive (EMC) 2014/30/EC, Noise Directive 2000/14/EC.

Manufacturer: DIMAX INTERNATIONAL GmbH
Address: Hauptstr. 134, 51143 Cologne, Germany
Product: Gasoline generators "Könner & Söhnen"
Type / Model: KS 12-1E ATSR, KS 12-1E 1/3 ATSR,
KS 15-1E ATSR, KS 15-1E 1/3 ATSR,

The statement is based on a single evaluation of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab. logo. The manufacturer should ensure that all product in series production are in conformity with the product sample detailed in this report. The applicant should hold the whole technical report at disposal of the competent all the right.

Applied EC Directives: 2006/42/EC Machinery Directive
2014/35/EC Low Voltage Directive
2014/30/EC Electromagnetic compatibility Directive (EMC)
2016/1628/EU Non-Road mobile machinery emissions
2000/14/EC Noise Directive
Applied Standards: EN ISO 8528-13:2016
EN 60204 - 1:2006 + A1:2009

Gasoline engine KS 650, KS 780 correspond to European Emission Standard Euro V.
This is confirmed by EU TYPE-APPROVAL CERTIFICATE.

Technical service responsible for carrying out the test -IDIADA.
Date of issue 16/03/2018

Guaranteed noise level:

96 dB(A) for KS 15-1E 1/3 ATSR, KS 15-1 E ATSR
97 dB(A) for KS 12-1E ATSR, KS 12-1E 1/3 ATSR



Issued Date: 2019-03-05
Place of issue: Cologne
Technical expert: Homenco A.

DIMAX
International
GmbH
Steuer-Nr.: 103 5722 2493
Ust-IdNr.: DE29617274

We DIMAX INTERNATIONAL GmbH hereby declare that specified above conforms covering European Parliament and Council Directives, 2006/42/EC of 17 May 2006 Machinery Directive, 2014/35/EC Low Voltage Directive of 26 February 2014, Electromagnetic compatibility Directive (EMC) 2014/30/EC of 26 February 2014, Noise Directive 2000/14/EC of 8 May 2000. The CE mark above can be used under the responsibility of manufacturer. After completion of an EC declaration of Conformity and compliance with all relevant EC directives.

CONTACTS

Deutschland:

DIMAX International GmbH
Deutschland, Hauptstr. 134,
51143 Köln,
www.ks-power.de

Ihre Bestellungen

orders@dimaxgroup.de

**Kundendienst, technische
Fragen und Unterstützung**
support@dimaxgroup.de

Garantie, Reparatur und Service

service@dimaxgroup.de

Sonstiges

info@dimaxgroup.de

Polska:

DIMAX International
Poland Sp.z o.o.
Polen, Warczawska, 306B
05-082 Stare Babice,
www.ks-power.pl
info.pl@dimaxgroup.de

Україна:

ТОВ «Техно Трейд КС»,
вул. Електротехнічна 47,
02222, м. Київ, Україна
www.ks-power.com.ua
sales@ks-power.com.ua

Россия:

ТД «Рус Энержи К&С» 129090,
г. Москва, проспект Мира,
д.19, стр.1, эт.1, пом.1,
комн.66, офис 99В
www.ks-power.ru
info@ks-power.ru