

Power Litë Compressor AKHL1230E(UK) HIGH PRESSURE COMPRESSOR



OPERATING and MAINTENANCE MANUAL



BEFORE USING THIS TOOL, STUDY THIS MANUAL TO ENSURE SAFETY WARNING AND INSTRUCTIONS. KEEP THESE INSTRUCTIONS WITH THE TOOL FOR FUTURE REFERENCE.

DEFINITIONS OF SIGNAL WORDS

- **WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
- **NOTE:** Emphasizes essential information.

OPERATING and MAINTENANCE MANUAL

INDEX

1.	SAFETY INSTRUCTIONS	3
2.	SPECIFICATIONS AND TECHNICAL DATA	8
3.	INSTRUCTIONS FOR OPERATION	9
4.	PROTECTIVE DEVICE	19
5.	ABNORMALITIES DURING OPERATION	20
6.	BUZZER TYPES	21
7.	AUTOMATIC ADJUSTMENT OF OPERATING POWER	
	(INVERTER CONTROL)	22
8.	IN ORDER TO MAINTAIN PERFORMANCE	22



BEFORE USING THIS COMPRESSOR, STUDY THIS MANUAL TO ENSURE SAFETY WARNING AND INSTRUCTIONS. KEEP THESE INSTRUCTIONS WITH THE TOOL FOR FUTURE REFERENCE.



READ THE INSTRUCTION HANDBOOK

Before positioning, operating or adjusting the compressor, read the instruction handbook carefully.



RISK OF ELECTRIC SHOCK

WARNING: Before doing any work on the compressor it must be disconnected from the power supply.



RISK OF ACCIDENTAL START-UP

CAUTION: The compressor could start automatically in case of a black-out and subsequent reset.

1. SAFETY INSTRUCTIONS





TO AVOID SEVERE PERSONAL INJURY OR PROPERTY DAMAGE BEFORE USING THE TOOL, READ CARE-FULLY AND UNDERSTAND THE FOLLOWING "SAFETY INSTRUCTIONS":

FAILURE TO FOLLOW WARNINGS COULD RESULT IN DEATH OR SERIOUS INJURY.

PRECAUTIONS ON USING THE COM-PRESSOR

IMPORTANT INFORMATION

Most accidents that result from compressor operation and maintenance are caused by the failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing a potentially hazardous situation before it occurs, and by observing appropriate safety procedures. Basic safety precautions are outlines in the "SAFETY" section of this Instruction Manual and in the sections which contain the operation and maintenance instructions.

Hazards that must be avoided to prevent bodily injury or machine damage are identified by WARNINGS on the compressor and in this Instruction Manual.

Never use this compressor in a manner that has not been specifically recommended by manufacturer, unless you first confirm that the planned use will be safe for you and others.

DEATH OR SERIOUS BODILY INJURY COULD RESULT FROM IMPROPER OR UNSAFE USE OF COMPRESSOR, TO AVOID THESE RISKS, FOLLOW THESE BASIC SAFETY INSTRUC-TIONS.

HIGH PRESSURE COMPRESSO PROVIDES BOTH HIGH PRESSURE AND REGULAR PRESSURE AIR. FOR USAGE OF HIGH PRES- SURE AIR, HIGH PRESSURE COMPRESSOR IS DESIGNED ONLY FOR MAX POWERLITE NAILERS AND POWERLITE HOSE. UNSPECI-FIED USAGE WILL CAUSE SERIOUS ACCI-DENTS.



- NEVER TOUCH MOVING PARTS Never place your hands, fingers or body parts near the compressor's moving parts.
- 2. NEVER OPERATE WITHOUT ALL GUARDS IN PLACE

Never operate the compressor without all guards or safety features in place and in proper working order. If maintenance or servicing requires the removal of a guard or safety features, be sure to replace the guards or safety feature before resuming operation of the compressor.



3. ALWAYS WEAR EYE PROTECTION

Always wear safety goggles or equivalent eye protection. Compressed air must never be aimed at anyone or any part of the body. Be sure to wear protective gear including the sound-proofing and protective garment, crash cap and safety footwear suited for the given working environment.

4. PROTECT YOURSELF AGAINST ELEC-TRIC SHOCK

Prevent body contact with grounded surfaces such as pipes, radiators, ranges and refrigeration enclosures. Never operate the compressor in damp or wet locations.



5. DISCONNECT THE COMPRESSOR Always disconnect the compressor from the power plug and remove the compressed air from the air tank before servicing, inspecting, maintaining, cleaning, replacing or checking any parts.

6. AVOID UNINTENTIONAL STARTING

Do not carry the compressor while it is connected to its power source or when the air tank is filled with compressed air. Be sure the knob of the pressure switch in the "OFF" position before connecting the compressor to its power source.

7. STORE COMPRESSOR PROPERLY

When not in use, the compressor should be stored in dry place. Keep out of reach of children. Lock-out the storage area.

8. KEEP WORK AREA CLEAN

Cluttered areas invite injuries. Clear all work areas of unnecessary tools, debris, furniture, etc.

9. KEEP CHILDREN AWAY

Do not let visitors contact compressor extension cord. All visitors should be kept safely away from work area. Keep out of reach of children

10. DRESS PROPERLY

Do not wear loose clothing or jewelry. They can be caught in moving parts. Wear protective hair covering to contain long hair.





11. DON'T ABUSE POWER CORD

Never yank it to disconnect from receptacle. Keep power cord from heat, oil and sharp edges. 12. MAINTAIN COMPRESSOR WITH CARE Follow instructions for lubricating. Inspect cords periodically and if damaged, have repaired by authorized service facility.



13. USE A SAFE EXTENSION CORD In order to prevent an electric shock, use a 3core extension cord with a 3-pole earthing plug and a 3-core earthing plug socket. Make sure that the extension cord is in the good working condition. If the cord is damaged, replace or repair it. The cord should have a sufficient capacity for the current running to the product. The cord of an insufficient capacity will cause a voltage drop or an electric power loss, resulting in overheating. The following table shows the cord size used depending on the cord length.

If the compressor is to be used outdoors, use an exclusive extension cord.

Tab.1 SECTION VALID FOR A MAX LENGTH OF 20m (65')

COMPRESSOR	HP	kW	110V (mm2)
AKHL1230E (UK)	2	1.5	4~6



WARNING

Avoid electrical shock hazard. Never use this compressor with a damaged or frayed electrical cord or extension cord. Inspect all electrical cords regularly. Never use in near water or in any environment where electric shock is possible.

14. STAY ALERT

Watch what you are doing. Use common sense. Do not operate compressor when you are tired. Compressor should never be used by you if you are under the influence of alcohol, drugs or medication that makes you drowsy.



15. CHECK DAMAGED PARTS AND AIR LEAK Before further use of the compressor, a guard or other part which is damaged should be care-

fully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, air leak, and any other conditions that may affected its operation.

A guard or other part that is damaged should be properly repaired or replaced by an authorized service facility unless otherwise indicated elsewhere in this Instruction Manual. Have defective pressure controllers replaced by authorized service facility.

Do not use compressor if switch does not turn it on and off.

16. OPERATE COMPRESSOR CORRECTLY

Operate the compressor according to the instructions provided herein. Never allow the compressor to be operated by children, individuals unfamiliar with its operation or unauthorized personal.

17. KEEP ALL SCREWS, BOLTS AND COV-ERS TIGHTLY IN PLACE

Keep all screws, bolts, and plates tightly mounted.

Check their conditions periodically.

18. KEEP MOTOR AIR VENT CLEAN

The motor air vent must be kept clean so that air can freely flow at all times. Check for dust build-up frequently.



19. OPERATE COMPRESSOR AT THE RAT-ED VOLTAGE

Operate the compressor at voltages specified on their nameplates. If using the compressor at a higher voltage than the rated voltage, it will result in abnormally fast motor revolution and may damage the unit and burn out the motor.



20. NEVER USE A COMPRESSOR WHICH IS DEFECTIVE OR OPERATING ABNOR-MALLY

If the compressor appears to be operating unusually, making strange noises, or otherwise appears defective, stop using it immediately and arrange for repairs by an authorized service facility.

21. DO NOT WIPE PLASTIC PARTS WITH SOLVENT

Solvent such as gasoline, thinner, benzine, carbon tetrachloride, and alcohol may damage and crack plastic parts. Do not wipe them with such solvents. Wipe plastic parts with a soft cloth lightly dampened with mild detergent and dry thoroughly.

22. USE ONLY GENUINE REPLACEMENT PARTS

Replacement parts not original may void your warranty and can lead to malfunction and resulting injuries. Genuine parts are available from your dealer.



23. DO NOT MODIFY THE COMPRESSOR

Do not modify the compressor. Always contact the authorized service facility any repairs. Unauthorized modification may not only impair the compressor performance but may also result in accident or injury to repair personnel who do not have the required knowledge and technical expertise to perform the repair operations correctly.

24. TURN OFF THE SWITCH WHEN THE COMPRESSOR IS NOT USED

When the compressor is not used, turn the switch OFF, disconnect the plug from the power source and open the drain cock to discharge the compressed air from the air tank.



25. NEVER TOUCH THE SURFACE OF THE HIGH-TEMPERATURE SECTION In order to prevent a burn, do not touch the piping, head, cylinder, motor and inverter case(lower cover).

26. DO NOT DIRECT AIR STREAM AT BODY Risk of injury, do not direct compressed air at persons or animals.



27. DRAIN TANK

Drain tank daily or after 4 hours of use. Open drain cock and tilt compressor to empty accumulated water.



- 28. DO NOT STOP COMPRESSOR BY PULL-ING OUT THE PLUG Use the " ON/OFF " switch.
- 29. WHENEVER USING THE HIGH PRESSURE SIDE OF THE MAX POWERLITE COMPRES-SOR, THE GENUINE PARTS FOR THE MAX POWERLITE TOOLS, POWERLITE HOSE AND COMPRESSOR MUST BE USED.

30. REPLACEMENT PARTS

When servicing, use only MAX genuine parts. Repair should be conducted only by authorized service facility.



31. NEVER USE A TRANSFORMER FOR THE POWER SUPPLY OF THIS COMPRES-SOR. USING A TRANSFORMER TO IN-CREASE THE VOLTAGE WILL CAUSE A FAILURE OR BURNOUT. (IF A TRANS-FORMER IS USED, OPERATION OF THE MACHINE WILL STOP.)



32. NEVER CONNECT THE COMPRESSOR TO AN ENGINE GENERATOR OR DI-RECT-CURRENT POWER SUPPLY The compressor will break or be damaged from burning.



33. THIS COMPRESSOR IS FOR INDOOR USE. DO NOT INSTALL THE COMPRES-SOR IN ANY PLACE EXPOSED TO RAIN OR SPLASHED WATER, HIGH-HUMIDITY PLACE OR HIGH-TEMPERATURE PLACE If used in the wet condition, it could produce an electric shock or be short-circuited, resulting in ignition. Use it under the environmental conditions provided by its specifications.



34. DO NOT OPERATE THE TOOL NEAR A FLAMMABLE SUBSTANCE

Never operate the tool near a flammable substance (e.g., thinner, gasoline, etc.). Volatile fumes from these substances could be drawn into the compressor and compressed together with the air and this could result in an explosion.

35. NEVER USE THE TOOL IN AN EXPLO-SIVE ATMOSPHERE

Sparks from the tool may ignite atmospheric gases, dust or other combustible materials.

36. BE SURE TO EARTH THE COMPRESSOR

Earth the compressor to prevent a worker from getting an electric shock. It comes with a 3-pole cord and a 3-pole earthing plug so that it can be connected to an appropriate earthing plug socket.

A green-and-yellow striped wire is an earthing conductor. Never connect it to other charged terminals.



- 37. WHEN CARRYING THE COMPRESSOR, HOLD IT CORRECTLY.
- 38. TAKE CARE TO TRANSPORT THE COM-PRESSOR CORRECTLY, DO NOT OVER-TURN IT OR LIFT IT WITH HOOKS OR ROPES.
- 39. WHEN DISPOSING THE MACHINE OR TIS PARTS, FOLLOW THE RELEVANT NA-TIONAL RULES.

2. SPECIFICATIONS AND TECHNICAL DATA

1. SPECIFICATIONS

Product No.	AKHL1230E (UK)
Power supply	110V±10% 50Hz±1%
Rated current	13A
Motor power	2HP
Protective earthing	Class I
Protective structure	IP20
Working temperature	0°C to +40°C
Working humidity	85 % RH or less. No dew condensation.
Height above sea level	Up to 1,000 m
Storage temperature	-10 to +50°C
Storage humidity	85 % RH or less. No dew condensation.
Pressure switch working range	Off:34bar/On:30bar (POWER MODE) Off:29bar/On:25bar (NORMAL MODE)

2. TECHNICAL DATA

Noise emission values:

A-weight emission sound pressure level at the work station, LpWSA : 75 dB. Uncertainty, KpA : 2 dB

Values determined according to noise test code ISO 2151: 2008 and noise measurement standard ISO 3744: 1995, ISO 11203.

3. INSTRUCTIONS FOR OP-ERATION

Unpack the compressor and check for any deficiency, damage caused during transportation and loose bolts and screws.



READ SECTION TITLED " SAFETY INSTRUC-TIONS "

WEAR SAFETY GLASSES OR GOGGLES

Danger to the eyes always exists due to the possibility of dust being blown up by the exhausted air or of a fastener flying up to the improper handling of the tool. For these reasons, safety glasses or goggles shall always be worn when operating the tool.

The employer and/or user must ensure that proper eye protection is worn. Eye protection equipment must conform to the requirements of Council Directive 89/686/EEC of 21 DEC. 1989 (the American National Standards Institute. ANSI Z87.1) and provide both frontal and side protection.

- **NOTE:** Non-side shielded spectacles and face shields alone do not provide adequate protection.
- **NOTE:** The information contained in this Instruction Manual is designed to assist you in the safe operation and maintenance of the compressor.

Some illustrations in this Instruction Manual may show details or attachments that differ from those on your own compressor. 1. INSTALLATION



WARNING

1. NEVER USE THE MACHINE IN A PLACE WHERE ANY VOLATILE COMBUSTIBLE SUBSTANCE HAS BEEN STORED. Never use it near gasoline, thinner, gas, paint or adhesive agent, because they could be ignited or blow up.



2. NEVER USE THE MACHINE NEAR THE HEAT OF FIRE OR ANY COMBUSTIBLE SUBSTANCE.





WARNING

3. NEVER USE THE MACHINE IN AN UN-STABLE PLACE.

Never use it in a place where it could move or fall of itself.

Be sure to install the compressor on a flat floor, with leg rubber underneath it; the allowable tilt angle of the floor is up to 10 degrees. If the installation floor is tilted and slippery, ensure that the compressor does not move during operation. Do not use it on a shelf or a stand where it may fall or tumble.





WARNING

4. AVOIDING A PLACE EXPOSED TO HIGH TEMPERATURE OR THE DIRECT SUN-SHINE, BE SURE TO USE THE MACHINE IN THE WELL-VENTILATED SHADE. Using it under high temperature or in the direct sunshine not only deteriorates its durability, but increases the temperature of the main body, causing danger to your safety. Be sure to use it in the well-ventilated shade. The adequate room temperature is +5°C to +30°C. (0°C to +40°C at maximum)







- 5. DO NOT INSTALL THE MACHINE IN A DUSTY(WOODEN CHIPS, ETC.) PLACE.
- 6. INSTALL THE MACHINE IN THE APPRO-PRIATE DIRECTION. Install it appropriately.







7. NEVER INSTALL THE MACHINE IN THE RAIN OR IN A PLACE SPLASHED WITH WATER OR EXPOSED TO HIGH TEMPER-ATURE.

Using it in the wet condition could cause an electric shock or a short-circuit, resulting in a fire due to burnout or ignition.





WARNING

 NEVER BLOCK A VENTILATION OPEN-ING OR USE THE MACHINE IN A BOX OR A NARROW PLACE(IN A VEHICLE, ETC.) Neglect of this may generate abnormal heat, causing a trouble or an accident. Install the compressor at the distance of 1 m or more from the wall to secure sufficient ventilation and cooling.







WARNING

9. NEVER SIT OR PLACE AN OBJECT ON THE TOP OF THE MACHINE.

Neglect of this could cause a trouble or break it.



Do not use the compressor in any place where the temperature is 0° C or less or the ambient temperature exceeds +40°C.

2. NAME OF PARTS



Description of Functions of Key Components

Power switch	Turns on or off the power supply
Reduction valve adjustment handle (H) (Orange cap)	Intended for exclusive use with the super nailer. It adjusts the operating pressure of the <i>PowerLife</i> tool.
Pressure-reduction valve adjust- ment handle (L) (Yellow cap)	Adjusts the pressure supplied to the general-purpose nailers and pneumatic tools (operating air pressure 8.3 bar maxi- mum).
Pressure gauge in the tank	Indicates pressure in the tank. The pressure increases up to 34 bar.
Pressure gauge for indicating the set reduction valve pressure (2 gauges)	It indicates the set pressure on the pressure-reduction valves (H) and (L). (24.5 bar maximum on the H side and 8.3 bar maximum on the L side.)
High pressure air chuck (for MAX <u>PowerLitë</u> tools)	It connects the MAX <i><u>BowerLite</u></i> air hose for the <u>BowerLite</u> tools.
General-purpose air chuck (for reg- ular pressure tools)	It connects the air hose for the general-pressure nailers.
Drain cock	It drains compressed air and water, Drain once when the work is finished or more a day.
Warning label	It posts the Warnings relevant to use of this machine. User is requested to read the label before using the machine.
Power plug	It is usable with a triode ground outlet.
Control panel	 It allows switching the mode between Normal, High Power and Quiet. Current consumption is reduced in the operation in Quiet mode.
Multilingual explanation of the con- trol panel	Displays terms on control panel in German, French, Italian, Spanish, Portuguese, Norwegian, Swedish, Finnish, Danish, Dutch, Polish, Greek, Turkish and Russian.



MAINTENANCE LED

If it is lit up, send the machine to your dealer or an authorized service facility for inspection. (See page 22) **TEMPERATURE OR ELECTRICAL PROBLEM LED**

See the buzzer types in Chapter 6. (See page 21)

The selector switch allows switching among the following operating modes. The factory default is 2.5-3.0 Normal mode.

Operating mode	Pressure control range		Application example
	ON pressure	OFF pressure	
NORMAL MODE	25 bar	29 bar	Joinery work by MAX <i>PowerLite</i> tools, general-purpose nailers, etc.
HIGH POWER MODE	30 bar	34 bar	Continuous surface fastening and the like with MAX <i>PowerLife</i> tools.

 Before using the control panel, remove the transparent sheet covering it on the shipped machine.

This machine also offers a power-saving operation Quiet mode that you can select when you want to suppress the noises accompanying the operation, or when tripping of the circuit breaker is anticipated during continuous operation. Press the Power-saving switch in Silent mode to turn on this mode.

- A buzzer sounds with a beep and the LED lights up when the operation switching takes place.
- The switching is available independent of whether the compressor is in operation or stopped.
- Even when the circuit breaker tripped or you have disconnected the power plug from the outlet during operation, status of the last operation is stored in memory.

3. MACHINE OPERATING PROCE-DURE

Inspection and checkup prior to operation



- Prior to use, <u>check</u> the bolts and nuts for loosening and the parts for missing one.
- The power supply used must 110 VAC 20 A and provided with a circuit breaker. Allowable source voltage range is +/-10%.
- Width and length of the extension cord or drum cord used must be 2.5 mm² minimum and 20 m maximum, respectively. And the cord must be fully drawn out when used.
- Make sure the machine is installed in the right direction when using it.
- * Use the machine in compliance with the instructions provided in "SAFETY INSTRUC-TIONS" on page 3.
- * Pressure values in the description do not include the error in reading the pressure gauge.



- After turning off the machine power switch, connect the earthing plug of the power plug to ground and then connect the power plug to the outlet.
 - When using an extension cord or drum cord, make sure its effective cross section and length are 2.5 mm² minimum and 20 m maximum, respectively.



- 2. Turn the power switch on while maintaining the drain cock fully open. The buzzer sounds with a beep at the same time.
 - For buzzer sounding patterns, see page 21.
- 3. Make sure that the motor starts to run and the air is leaking from the drain cock when the drain cock is open.



4. Close the drain cock and make sure no air is leaking from the cock.



 Turn the adjustment handle (in 2 locations) of the pressure-reduction valve fully clockwise until you cannot move it anymore and make sure that the above operation moves the pressure gauge pointer (upward) at both locations.



• As the pressure in the air tank increases due to the pressure characteristic of the pressure-reduction valve, the pressure can vary from the set supply pressure by as much as 2 bar.

Turn the pressure-reduction valve's adjustment handle counterclockwise once to reduce the pressure and then proceed to the adjustment while increasing the pressure by turning the adjusting hand clockwise.



- Make sure that the compression operation is automatically stopped in 6 to 7 minutes. Except when the power-saving operation in Silent mode is turned on, auxiliary tank is connected or voltage drop occurred, since these extends the operating hours.
- 7. Wait for 5 minutes after the operation is stopped to confirm that there are no abnormal noises or air leakages and that the compressor does not restart.



8. Discharge the compressed air by opening the drain cock somewhat. Make sure that the operation is resumed due to a decrease in the pressure.



 Close the drain cock and turn the power off while the compression operation is turned on to make sure that these actions stop the machine from operating.



10. Turn the adjustment handle (in 2 locations) of the pressure-reduction valve counterclockwise to make sure that this turning moves the pressure gauge pointer downward at both locations. (You may hear sounds due to air leaking but it does not mean there is a failure.)



11. Open the drain cock to discharge all the compressed air and water in the air tank. If you found any abnormalities in the check-up or inspection prior to the operation, send the machine to your dealer or authorized service facility for inspection or repair.

Operating Procedure

Before operating the machine, be sure to carry out the "Inspection and checkup prior to operation" described on page 15.



- 1. Fully open the drain cock and turn the power switch on. The buzzer will sound with a beep at the same time.
 - For buzzer sounding patterns, see page 21.
 After the operation has started close

After the operation has started, close the drain cock tight to increase the pressure.



- 2. After confirming the operation has stopped due to the increased pressure, turn the adjustment handle of the pressure-reduction valve to adjust the operating pressure of the nailer and pneumatic tool to the appropriate level. When adjusting the pressure, turn the pressurereduction valve's adjustment handle counterclockwise to set the pressure at a level lower than the appropriate value by 2 bars once. Then proceed to the adjustment while increasing the pressure by turning the handle clockwise.
 - Make sure to start the adjustment at a level lower than the appropriate pressure and continue the adjustment while increasing the pressure from that level upward. If you start the adjustment from a level higher than the appropriate value, an error results between the pressure gauge value and actually used pressure. (Due to Characteristics of pressure-reduction valve respectively)
 - 2 pressure-reduction valves provided on this machine allow you to connect MAX <u>PowerLite</u> and the general-purpose nailer or pneumatic tool.

<Pressure-reduction valve H> Allows connection and use of MAX PowerLite tools (of operating pressure of 24.5 bars maximum)

<Pressure-reduction valve L> Allows connection and use of the general-purpose nailers or pneumatic tools (of operating pressure of 8.3 bars maximum)



• You must <u>observe</u> the specified operating air pressure for the nailers and pneumatic tools.

Using a nailer or pneumatic tool without adjusting the supply pressure with the reduction valve can seriously degrade their performance, induce their premature aging or damage them.

Using a nailer or pneumatic tool at an inappropriate pressure level (at an unnecessary high pressure) increases their air consumption, potentially degrading their capability in continuous work. Be sure to use them at the appropriate pressure.



- 3. After you have finished with the adjustment of supply pressure, you can start the operation by connecting the air hose to the air outlet (air chuck).
- 4. Connect the high pressure hose to the high pressure air hose for MAX PowerLite tools to the high pressure air chuck on the H side of the pressure-reduction valve.

Connect the air hose for the general-purpose nailer to the air chuck on the L side of the pressure-reduction valve.

• The air chuck is the one-touch type, allowing you to connect the air plug to the air chuck just by pushing in.



- Before connecting the air hose to this compressor, <u>make sure</u> that the air hose and hose fixture are firmly secured.
- 5. OPERATION OUTPUT AUTOMATIC SWITCHING MECHANISM

Operation mode switching on this machine is carried out by the selector switch. Select a desired mode from those listed in the table on page 15 according to the given application.

4. PROTECTIVE DEVICE

If internal heat builds up during operation due to clogging of the airflow orifice, if the machine is used in a highly heated environment or if an abnormality occurs inside the machine, the thermal protector for preventing burnout may be activated to stop the motor operation. The buzzer will sound in this case. In such a case:



- 1. Turn the power switch off and disconnect the power plug from the outlet.
 - For buzzer sounding patterns, see page 21.



2. Connect the power plug to the outlet and turn the power switch on to resume the operation.

• If the motor has sufficiently cooled down, the resumed operation may active the protective device soon after. In other cases, the operation may not resumed when you turned the power switch on. In such a case, wait for about 30 minutes for the motor to cool down before restarting the machine.



3. If the protective device was activated when there were no apparent problems existing in the operating environment, stop using the compressor and send it to your dealer or authorized service facility for checkups or repairs.

5. ABNORMALITIES DURING OPERATION



If you detect any abnormalities, <u>do not operate</u> the compressor.

If you encounter any of the following abnormal phenomena, turn off the power switch immediately, disconnect the power plug from the outlet and send the machine to your dealer or authorized service facility for checkups or repairs.

- 1. The following problems may occur even when there are no problems with the power supply or wiring: (See "PROTEC-TIVE DEVICE" on page 19.)
 - Turning on the power switch does not start up the machine.
 - Motor vibration is generated
- 2. Abnormal sounds are generated during operation. (See "AUTOMATIC ADJUST-MENT OF OPERATING POWER" (IN-VERTER CONTROL) on page 22.)
- 3. The safety valve instead of the pressure sensor is activated, allowing the compressed air to blow out.
- 4. Air leakage happens.
- 5. Pressure does not increase. (See page 22)
- 6. An electrical shock-like pain is felt when touched the metal part.
- 7. Other abnormalities than the above that is recognized during operation.

6. BUZZER TYPES

In normal operation

Buzzer sounds	Symptom	Actions taken
A one-time short beep sound (Pi)	At powering on	-
	When the operating mode is switched	-

In cases of abnormal operation

	Buzzer sounds	TEMPERATURE OR ELECTRICAL PROB- LEM LED (1 LED)	Cause	Actions taken
	None Short beep		Voltage is too low or high	Examine the state of the power supply (See page 22)
1	sounds (Pi, Pi, Pi,) * refer to the below i)~iv)	Lighting up		
2	Long beep sounds (Pii, Pii, Pii,)	Lighting up	 Motor temperature went abnormally high Temperature in the control circuit has built up to an abnormally high level (LED remains lighting up.) 	 Do not use the compressor in extremely high temperatures. Do not clog the airflow orifice. Examine the state of the power supply (See page 22) Do not use the compressor in a place where it can be splashed with water or in a highly humid place.
3	Short beep beep- ing sounds (Pi, Pi, Pi,) * refer to the below v)	Blinking	 Motor does not run Failure in the control circuit (LED remains blinking.) 	It is due to a failure on the inverter or motor. Send the machine to your deal- er or authorized service facility to have their checkup or repair.

i) If an excessively low voltage state (180V or below) is continued for 4 seconds or longer, ILED remains lighting up even after the voltage has been recovered.

 ii) If the voltage drops down to a low voltage level of 160V or below, @LED remains lighting up with short beep sounds (Pi, Pi, Pi, ...), until power switch is turned off. If the voltage drops down further and motor stops with error, @LED also remains lighting up with short beep sounds (Pi, Pi, Pi, ...), until power switch is turned off.

- iii) If an excessively high voltage state (255V or over) is continued for 2 seconds or longer, 1 LED lights up without beep sounds. 1 LED is turned off after the voltage drops down under 255V.
- iv) If the voltage increases to a high voltage level of 265V or over for 2 seconds or longer, motor stops automatically and ILED remains lighting up with long beep sounds (Piii), until power switch is turned off.
- v) In other cases of abnormal motor stop automatically, 1 LED remains lighting up with intermittent long beep sounds (Pi, Pi, Pi, ...), until power switch is turned off.

7. AUTOMATIC ADJUSTMENT OF OPERATING POWER (IN-VERTER CONTROL)

Microcomputer-based inverter control is enabled on this machine in order to ensure the maximum utilization of the discharging performance. Adjustment of the operating power is automatically continued until the pressure in the machine tank reaches the maximum level being set for the currently set mode. Operating sounds may change when the operating power is switched, but you do not have to worry about them. Changes in the sounds are not due to a failure.

- The pressure level at which the output changeover is activated varies depending on the capacity of the main power supply, type of extension cord used and parallel use of other electric equipment. If the voltage is excessively low, extra time will be required for the filling.
- If the fill time is longer than usual or when the pressure does not increase, change the current connection to the power supply (reconnect to the main power supply) or stop the joint use of the power supply with a power tool.
- When capacity of the main power is 110 V or less, or when it is jointly used with another power tool, a radical voltage drop results, inducing startup failure.
- The circuit breaker of the power supply may be activated if the total current consumption resulting from the parallel use with another power tool exceeds the current capacity of the circuit breaker.

In such a case, do not use the same power supply to power any other power tools.

8. IN ORDER TO MAINTAIN PERFORMANCE



- 1. Drain water from the machine. After the work is finished, turn the handle of the pressure-reduction valve clockwise and open the drain cock gradually to drain the compressed air and water in the air tank until the pressure gauge pointer of the pressurereduction valve points to 0.
 - Not draining the water will result in the inside of the air tank becoming moldy, potentially leading to a failure.



2. The Maintenance LED lights up or flashes.

Operating hours of this machine are measured with a microcomputer. The MAINTE-NANCE LED lights up as the machine operating hours reaches 1000 hours. If the Maintenance LED lights up, send the machine to your dealer or an authorized service facility for inspection. 3. Implement the machine inspection on a regular basis.

The User is requested to implement cleaning and inspection of the machine in order to maintain its performance. Please do not hesitate to let your dealer or authorized service facility inspect your machine.



4. Handle this machine carefully.

Dropping the machine inadvertently, bumping it against solid objects or hitting it can cause deformation, cracks or damage to the machine. The User is advised not to invite an accident by dropping, bumping or hitting the machine.

5. Inspect the machine every time you use it.

Check and inspect the machine in conformance with the procedure described in the SAFETY INSTRUCTIONS provided on page 3 and after.

6. ABOUT PRODUCTION YEAR

This product bears production number in the RATING LABEL. The two digits of the number from left indicates the production year.

(Example) 08826035D T Year 2008

AKHL1230E

We hereby declare that the product titled in this instruction manual conforms to the essential health and safety requirements of EC Directives as below. Directive EMC EN61000-6-42007 EN61000-6-42005 EN61000-3-22006 EN6100-3-22006 EN61000-3-22006 EN61000-3-22006 EN61000-3-22006 EN61000-3-22006 EN61000-3-22006 EN6100-3-2006 EN6100-3-2006 EN6100-3-2006 EN6100-3-2006 EN61	partement Assurance de Qualité ira-machi, Sawa-gun pon		
health and safety requirements of EC Directives as below. Directive EMC EN1000-6-42007 Directive Machinery Directive 2006/42/EC Low Voltage Directive 2006/42/EC EN61000-3-22006 EN61000-3-22006 EN61000-3-22006 EN61000-3-22006 EN61000-3-23(1995,+/ EMC Directive 2004/108/EC Manufacturer :MAX CO., LTD. 1848, Kawai, Tamamura-machi, Sawa-gun, Gunma, 370-1117 Japan	partement Assurance de Qualité ira-machi, Sawa-gun pon 3V/Président dans la		
Low Voltage Directive 2006/95/EC ENG1000-3-3:1995,+/ EMC Directive 2004/108/EC Titre :Directeur Général,Déf Manufacturer :MAX CO., LTD. 1848, Kawai, Tamamura-machi, Sawa-gun, Gunma, 370-1117 Japan	partement Assurance de Qualité ira-machi, Sawa-gun pon 3V/Président dans la		
Manufacturer :MAX CO., LTD. Adresse :1448, Kawai, Tamami 1848, Kawai, Tamamura-machi, Sawa-gun, Gunma, 370-1117 Japan	ira-machi, Sawa-gun pon 3V/Président dans la		
This product has been evaluated for conformity with the above directives using the following European standards.			
Machinery Directive :EN1012-1:1997 DICHIARAZIONE	DI CONFORMITÀ CE		
Low Voltage Directive :EN60204-1:2006 requisiti di base concernenti la salute e la	uesto manuale di istruzioni risulta conforme a a sicurezza, espressi dalle direttive CE, com		
Safety of machinery –Electrical equipment of machines –Part1:General requirements riportato di seguito.			
EMC Directive :EN61000-6-4:2007 Direttiva :Direttiva Macchine 20 EN61000-6-2:2005 Direttiva Bassa tensio EN61000-3-2:2006 Direttiva EMC 2004/1 EN61000-3-3:1995,+A1:2001,+A2:2005	one 2006/95/CE		
Title :General Manager Quality Assurance Department Productore :MAX CO., LTD.	ura-machi, Sawa-gun,		
Address :1848, Kawai, Tamamura-machi, Sawa-gun, Gunma, 370-1117 Ja Gunma, 370-1117 Japan	apan		
Authorised complier :MAX.EUROPE BV/President in the community Camerastraat 19,1322 BB Almere, The Netherlands	onformità con le succitate direttive, secondo		
Direttiva Macchine :EN1012-1:1997	Direttiva Macchine :EN1012-1:1997 Compressori e pompe per vuoto - Requisiti di sicurezza - Parte 1:Compressori		
EG KONFORMITÄTSERKLÄRUNG Direttiva Bassa tensione :EN60204-1:200 Sicurezza del macchinario - Equipagojam	06 ento elettrico delle macchine - Parte1:Regole		
Wir erklären hiermit, dass das in dieser Bedienungsanleitung beschriebene Produkt mit den maßgeblichen Gesundheits- und Sicherheitsvorschriften der EG-Richtlinien konform ist, wie	Ū.		
Direttiva EMC EN61000-6-4:2007 EN61000-6-2:2005			
Richtlinie :Maschinenrichtlinie 2006/42/EC EN61000-3-2:2005 Niederspannungsrichtlinie 2006/95/EG EN61000-3-3:1995,+/	A1-2001 +A2-2005		
EMC-Richtlinie 2004/108/EC	rtimento controllo qualità		
Hersteller :MAX CO., LTD. 1848, Kawai, Tamamura-machi, Sawa-gun, Gunma, 370-1117 Japan Gunma, 370-1117 Git	ura-machi, Sawa-gun,		
	esidente della società MAX.EUROPE 2 BB Almere, Olanda		
Maschinenrichtlinie :EN1012-1:1997 Kompressoren und Unterdruckpumpen - Sicherheitsanforderungen - Teil 1: Kompressoren	C DE CONFORMIDAD		
Niederspannungsrichtlinie :EN60204-1:2006 Sicherheit der Maschinenanlagen - Elektrische Anlagen von Maschinen - Teil 1: Allgemeine las Directivas CE.	Por este medio declaramos que el producto mencionado en este manual de instruccioner se encuentra en conformidad con los requerimientos de salud y de seguridad esenciales de las Directivas CE.		
Anforderungen Directiva sobre Maqu EMC-Richtlinie :EN61000-6-4:2007 Directiva sobre Maqu EN61000-6-2:2005 Directiva ENC 2004/1	ensión 2006/95/EC		
EN61000-3-2:2006 EN61000-3-3:1995,+A1:2001,+A2:2005 Fabricante :MAX CO., LTD.			
Position : Generaldirektor, Abteilung für Qualitätssicherung Gunma, 370-1117 Ja Adresse :1848, Kawai, Tamamura-machi, Sawa-gun,	ura-machi, Sawa-gun, apan		
Gunma, 370-1117 Japan Este producto ha sido evaluado en confor usando los estándares de Europa.	rmidad con las directivas antes mencionadas		
Autorisierter Entsorger: MAX.EUROPE BV/Präsident in der Gemeinschaft Camerastraat 19, 1322 BB Almere, Holland Directiva sobre maquinaria :EN1012-1:1997 Compresores y Bombas de vacio - Requisit			
DÉCLARATION DE CONFORMITÉ CE Directiva sobre baja tensión :EN60204-1:200 Seguridad de maquinaria – Equipo eléctrico.	06		
Nous déclarons par la présente que le produit du titre de ce manuel d'instructions est conforme aux exigences essentielles de santé et de sécurité des Directives CE décrites ci-dessous. EN61000-6-4:2007 EN61000-6-2:2005			
Directive iDirective de Mécanique 2006/42/CE EN61000-3-2:2006 Directive de basse tension 2006/95/CE Directive EMC 2004/108/CE Título : Gerente general,Dep	A1:2001,+A2:2005 artamento de aseguramiento de calidad		
Fabricant :MAX CO., LTD. Dirección :1848, Kawai, Tamamu Gunma, 370-1117 Jaj	ura-machi, Sawa-gun,		
1848, Kawai, Tamamura-machi, Sawa-gun, Gunma, 370-1117 Japan Complier autorizado:MAX.EUROPE BV/Presi Camerastraat 19,1322 BB Almere, Holanda	idente de la comunidad		
Ce produit a été évalué pour sa conformité aux directives ci-dessus en utilisant les standards Européens suivants.			
Directive de Mécanique :EN1012-1:1997 Compresseurs et pompes à vide- Exigences de sécurité-1ère partie:Compresseurs			
Directive de basse tension :EN60204.1:2006			

- The content of this manual might be changed without notice for improvement.
- The specifications and design of the products in this manual will be subject to change without advance notice due to our continuous efforts to improve the quality of our products.



MAX EUROPE GMBH

OSTSTRASSE 22, 40211 DÜSSELDORF, GERMANY TEL: +49-211-9365300 FAX: +49-211-93653017

MAX EUROPE BV

Camerastraat 19 1322 BB Almere The Netherlands Phone: +31-36-546-9699 FAX: +31-36-536-3985

www.max-ltd.co.jp/int/ (GLOBAL Site) www.max-europe.com (EUROPE Site)

4007917 110302-00/01