CAP-836
June, 2015
Rev. B

Nx Series

iCommand – Basic Controller

Operator Manual

WARNING
Personal injury and/or equipment damage will be result by failing to pay attention to the vital safety information and instructions in this manual. Carefully read, understand, and retain all safety information and instructions before operating this compressor.

Information on these operating instructions

These instructions enable you to use the machine safely and efficiently. The instructions are a component part of the machine and must be accessible for staff at all times.

Staff must have carefully read and understood these instructions before starting all work. The basic prerequisite for safe working is compliance with all the safety instructions and instruction for actions included in these operating instructions.

The local occupational health and safety regulations and general safety rules for operational area of the machine also apply.

The instructions for the machine do not cover operation of the controller. Therefore, the instructions and content of the instructions for the controller in question must also be taken into account.

Copyright

Limitation of liability

All information and instructions in this manual have been compiled taking account of the applicable standards and regulations, state-of-the-art technology and our years of knowledge and experience.

The manufacturer assumes no liability for damages caused by:

- failure to adhere to these instructions
- improper use
- use of unqualified staff
- unauthorized conversions
- technical modifications
- use of non-approved spare parts

The actual scope of supply may differ from the descriptions and illustrations in these instructions in the case of special designs, the inclusion of additional ordering options or as a result of the latest technical modifications.

The obligations agreed in the contract of supply, the manufacturer's general terms and conditions of business and delivery and the legal regulations valid at the time of completion of the contract apply.

Customer service

Our Customer Service department is available to provide technical information.

In addition, our employees are always interested in receiving new information and hearing of your experiences from usage which could be valuable for the improvement of our products.

Table of contents

1 Safety

This section is a summary of import ant safety aspects to ensure optimum protection of the personnel and safe and trouble-free operation.

The owner, lessor or operator of this compressor is hereby notified a nd forewarned that failure to observe these safety precautions may result in injury and/or property damage.

FS Curtis does not mean to imply that the following safety precautions are all-inclusive or that the observance of these precautions will prevent all injury or property damage.

FS Curtis expressly disclaims responsibility or liability for any injury or property damage caused by failure to follow these specified precautions or by failure to exercise ordinary caution and due care required in operating or handling this equipment even though not expressly specified.

1.1 Symbols in these instructions

Safety instructions

The safety instructions and safety information in these instructions are denoted by symbols. The safety instructions are prefaced by signal words which express the extent of the risk.

DANGER!

This combination of symbol and signal word indicates a directly hazardous situation which will lead to serious or even fatal injuries if not avoided.

WARNING!

This combination of symbol and signal word indicates a possibly hazardous situation which may lead serious or even fatal injuries if not avoided.

CAUTION!

This combination of symbol and signal word indicates a possibly hazardous situation which may cause minor or light injuries if not avoided.

NOTICE!

This combination of symbol and signal word indicates a possibly hazardous situation which may cause material damage if not avoided or possible hazards for the environment.

Safety instructions in action sequences

Safety instructions may relate to certain, individual instructions for actions. These safety instructions are embedded in the instruction for action so that they do not interrupt the flow of reading when performing the action. The signal words described above are used.

Example:

1. Unfasten the screw.
2. 

   CAUTION!
   Risk of entrapment on the cover!

   Close the cover carefully.
3. Tighten the screw.

Special safety instructions

The following symbols are used in conjunction with the safety instructions in order to draw attention to particular hazards:

	Warning – high-voltage.
	Warning – explosive substances.
	Warning – danger zone.

Tips and recommendations

This symbol indicates tips and recommendations and information for efficient and fault-free operation.

Further markings

The following markings are used in these instructions for emphasizing instructions for actions, results, lists, cross references and other elements:

Marking	Explanation
1.,2.,3,…	Identifies step-by-step instructions.
⇨	Identifies a state or automatic sequence as result of steps.
	Identifies references to chapters in this manual and to other valid documents.
■	Identifies random numerations and list entries.
[Key]	Indicates names of keys, buttons and other operating controls.

1.2 Proper use

The machine is designed and constructed exclusively for the proper use described here.

The screw compressor serves exclusively to generate compressed air in an environment not subject to explosion. The screw compressor must be supplied exclusively with cool, dry and dust-free cooling air.

Do not operate the compressor in excess of its rated pressures and speeds indicated on the compressor nameplate.

The proper use also includes adherence to all details in this manual.

Any use beyond the proper use or other type of use counts as misuse.

WARNING!
Danger due to misuse!

- The compressed air may not be used for breathing without appropriate after-treatment.
- The compressed air may not be used directly for pharmaceutical or sanitary purposes or for the direct handling of food without appropriate after-treatment.
- The screw compressor may not be operated outdoors.
- The screw compressor or individual components may not be rebuilt, modified or re-equipped.
- The screw compressor may not be used in an atmosphere subject to explosion.
- The intake of media other than cool, dry and dust-free cooling air is forbidden.

Claims of any type for damage due to misuse are excluded.

1.3 General safety

1. Read and understand all the instructions found in this manual before operating your compressor.
2. **Disconnect the main power source before working on or performing any maintenance procedures on this unit. Use a lock out and tag out process.**
3. Do not attempt to remove any parts, break any connection, loosen oil fill plug or drain plug until the unit has been shut down and air pressure has been relieved.
4. Do not operate the compressor in excess of its rated pressures and speeds indicated on the compressor nameplate.
5. Do not remove guards, shields, or screens while the compressor is in operation. If removed for maintenance replace before resuming operation.
6. Observe the delivery pressure gauge daily to be sure the automatic control system is operating within proper limits.
7. Periodically check all safety and relief devices for proper operation.
8. Use compressed air properly. Pressurized air can cause serious injury to personnel.
9. Be sure that no tools, rags or loose parts are left in or on the compressor or drive parts.
10. Do not use flammable solvents for cleaning parts.
11. Exercise cleanliness during maintenance and when making repairs. Keep dirt away from parts and exposed openings by covering with clean cloth or Kraft paper.
12. Do not install a shut-off valve in the discharge line without installing a pressure relief valve between the shut-off and the compressor package.
13. Do not operate the compressor in areas where there is a possibility of flammable or toxic substances entering the system.
14. Never disconnect (or jump) the air discharge temperature switch or any other safety device and attempt to operate the compressor.
15. Know what mode of operation the compressor is in before working around the unit. The power may be on but the machine not running if it is in the auto restart mode. Adhere to note #2 above.

1.4 Safety devices

WARNING!
Danger to life from nonfunctional safety devices!

If safety devices are not functioning or are disabled, there is a danger of grave injury or death.

- Check that all safety devices are fully functional and correctly installed before starting work.
- Never disable or bypass safety devices.
- Ensure that all safety devices are always accessible.

1.4.1 Position of the safety devices

The following illustrations show the position of the safety devices.

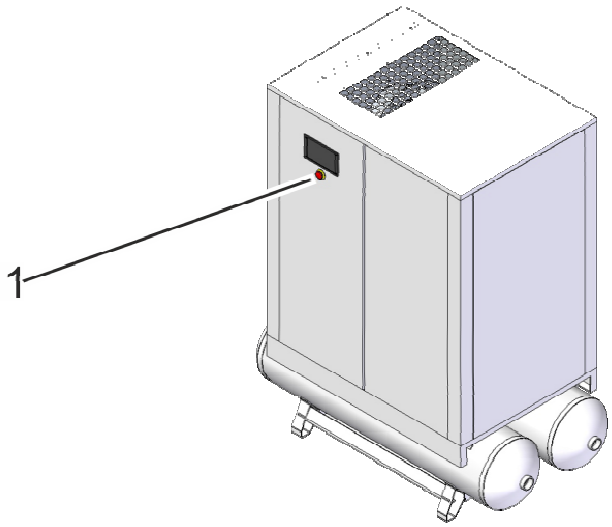


Fig. 1: Emergency stop button (1) on the screw compressor 18–37 kW with tank (optional)

1.4.2 Description of the installed safety devices

Emergency stop button

Fig. 2: Emergency stop button

By pressing the emergency stop button, the machine is stopped by an immediate switching off of the power supply. After an emergency stop button has been pressed, it must be unlocked by turning it so that switching on is possible.

WARNING!
Danger to life from an unauthorized restart!

An uncontrolled restart of the machine may cause serious injuries including death.

- Before switching the machine back on, make sure the cause of the emergency stop has been removed and all safety devices have been installed and function properly.
- Do not unlock the EMERGENCY-STOP button until there is no more danger.

Relief valves

Relief valves are unburdening equipment for areas under pressure such as boilers, pressure vessels and pipes. In case of an impermissible pressure increase, relief valves bleed off gases, vapors or liquids into the atmosphere.

Do not change the pressure setting of the pressure relief valve, restrict the function of the relief valve or replace the relief valve with a plug.

1.5 Environmental protection

NOTICE!
Danger to the environment from incorrect handling of pollutants!

Incorrect handling of pollutants, particularly incorrect waste disposal, may cause serious damage to the environment.

- Always observe the instructions below regarding handling and disposal of pollutants.
- Take the appropriate actions immediately if pollutants escape accidentally into the environment. If in doubt, inform the responsible municipal authorities about the damage and ask about the appropriate actions to be taken.

The following chemicals are used:

Oil

Oils can contain substances that are harmful to the environment. They must not be allowed to escape into the environment. Catch replaced oils in suitable containers and dispose of in accordance with applicable local, state and federal regulations

Lubricants

Lubricants such as greases and oils can contain harmful substances. They must not be allowed to escape into the environment. Dispose of lubricants in accordance with applicable local, state and federal regulations.

1.6 *Instructions on the machine*

WARNING!
Danger of injury from illegible symbols!

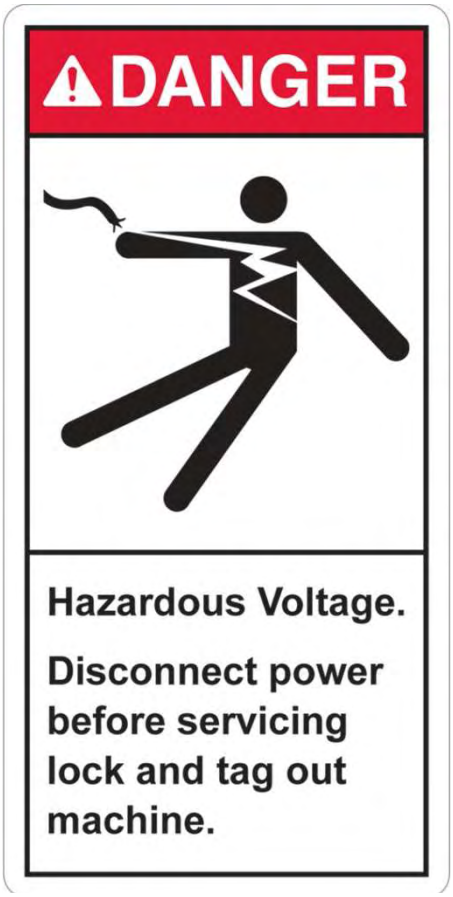
Stickers and signs can become dirty or otherwise obscured over time, with the result that dangers cannot be recognized and the necessary operating instructions cannot be complied with. This, in turn, poses a risk of injury.

- All safety, warning and operating instructions must always be maintained in a completely legible condition.
- Damaged signs or stickers must be replaced immediately.

Direction of rotation

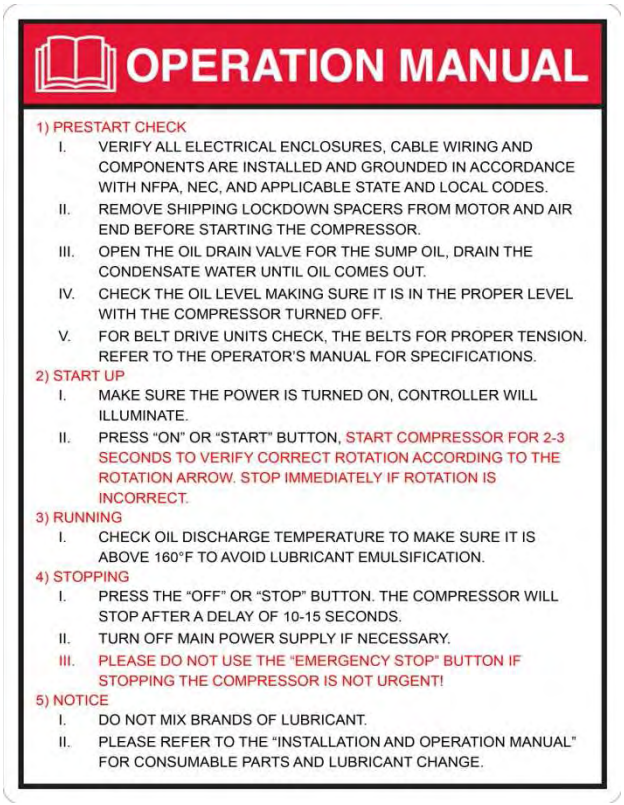
There is a direction of rotation sticker on the drive unit and on the cooling air ventilator. This sticker shows the appropriate direction of rotation.

Hazardous Voltage



Brief instructions for operation

This sticker is on the enclosure and contains brief instructions for operation.



OPERATION MANUAL

1) PRESTART CHECK
- I. VERIFY ALL ELECTRICAL ENCLOSURES, CABLE WIRING AND COMPONENTS ARE INSTALLED AND GROUNDED IN ACCORDANCE WITH NFPA, NEC, AND APPLICABLE STATE AND LOCAL CODES.
- II. REMOVE SHIPPING LOCKDOWN SPACERS FROM MOTOR AND AIR END BEFORE STARTING THE COMPRESSOR.
- III. OPEN THE OIL DRAIN VALVE FOR THE SUMP OIL, DRAIN THE CONDENSATE WATER UNTIL OIL COMES OUT.
- IV. CHECK THE OIL LEVEL MAKING SURE IT IS IN THE PROPER LEVEL WITH THE COMPRESSOR TURNED OFF.
- V. FOR BELT DRIVE UNITS CHECK, THE BELTS FOR PROPER TENSION. REFER TO THE OPERATOR'S MANUAL FOR SPECIFICATIONS.

2) START UP
- I. MAKE SURE THE POWER IS TURNED ON, CONTROLLER WILL ILLUMINATE.
- II. PRESS "ON" OR "START" BUTTON, START COMPRESSOR FOR 2-3 SECONDS TO VERIFY CORRECT ROTATION ACCORDING TO THE ROTATION ARROW. STOP IMMEDIATELY IF ROTATION IS INCORRECT.

3) RUNNING
- I. CHECK OIL DISCHARGE TEMPERATURE TO MAKE SURE IT IS ABOVE 160°F TO AVOID LUBRICANT EMULSIFICATION.

4) STOPPING
- I. PRESS THE "OFF" OR "STOP" BUTTON. THE COMPRESSOR WILL STOP AFTER A DELAY OF 10-15 SECONDS.
- II. TURN OFF MAIN POWER SUPPLY IF NECESSARY.
- III. PLEASE DO NOT USE THE "EMERGENCY STOP" BUTTON IF STOPPING THE COMPRESSOR IS NOT URGENT!

5) NOTICE
- I. DO NOT MIX BRANDS OF LUBRICANT.
- II. PLEASE REFER TO THE "INSTALLATION AND OPERATION MANUAL" FOR CONSUMABLE PARTS AND LUBRICANT CHANGE.

2 ICOMMAND - BASIC

2.1 Overview of ICOMMAND - BASIC

Fig. 3: Overview of ICOMMAND - BASIC

No.	Key/icon	Description of function
1	Display	Displays settings and operating parameters.
2		Serves to switch on the compressor. The integrated green LED indicates the operating state.
3		Indicates warnings with flashing and faults with red LEDs that light up.
4		Serves to switch off the compressor, to acknowledge fault/warning messages and to call up the code input menu.
5		Serves to call up additional operating data.
6		Serves to confirm inputs.
7		Serves to scroll and reduce values.
8		Serves to scroll and increase values.

2.2 Brief description

The ICOMMAND - BASIC controller serves

- to display operating data/the compressor state
- to switch on/off the compressor/the compressed air generation
- to program the compressor and the compressed air generation.

2.3 Operating modes

Overview

Three operating modes can be set using the controller.

Operating mode	Description
Automatic operation	After reaching the switch-off pressure, the system switches to idle for the duration of the idle time (run-on). After the run-on time has elapsed, the motor switches off. The compressor can start up by itself at any time if the machine drops below the switch-on pressure.
Load/idle operation	The compressor switches between "Load" and "Idle" operation; i.e. there is an unlimited run-on.
Basic load switching mode (BLS mode)	The switch on/off pressure set is not taken into account by the controller. The compressor is controlled by a superior controller.

Safety pressure

The safety pressure is the sum of the set maximum pressure +14 psi. If the pressure exceeds the value of the safety pressure, the compressor is switched off with a fault message. If the maximum pressure is exceeded by 7 psi, a warning appears on the display.

2.4 Display structure

Overview

The display shows all operation-relevant information such as the parameters set.

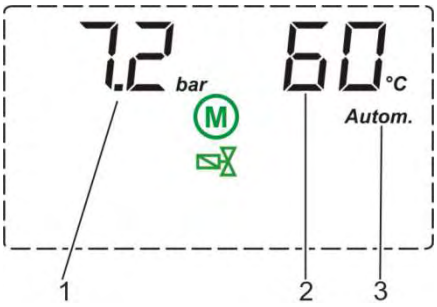


Fig. 4: Overview of basic display

1 Display *Current network pressure*: Displays the current network pressure.
2 Display *Current compressor temperature*: Displays the current compressor temperature.
3 *Operating mode* display: Displays the current operating mode.

By pressing the key, the current oil liquid temperature can also be shown on the Current compressor temperature display.

2.4.1 Other display indicators

The following symbols can also appear on the display:

Symbol	Description
	Motor is running.
	Compressor is compressing air.
	Fault present.
Restart	Automatic restart after power failure is activated.
Remote	Flashing: compressed air generation on/off via remote switch. Static: compressed air generation is controlled by superior controller.
	Warning/maintenance message present.

2.4.2 Operating mode display

The following text/symbols can appear on the *Operating mode* display:

Symbol	Description
Autom.	Operating mode automatic/optional automatic active.

If the compressor is in load/idle operation, nothing is shown on the Operating mode display.

2.5 Switching the compressor on/off

Switching the compressor on

1. Press (I).
   ⇨ The integrated green LED lights up.

Switching the compressor off

1. Press (O).
   ⇨ The green LED in the (I) key goes out.

During the switch-off process, the compressor initially switches to "Off load" (motor running, however the compressor is not compressing any air; a counter appears on the screen) for the duration of the off time. Only then does the compressor switch off (the motor stops).

2.6 Calling up information

It is possible to display various information about operating states and parameter values on the display. In order to switch between the information and the parameter displays, it is only necessary to press the Info key. The Information menu with parameter number and the parameter value then appears on the display.

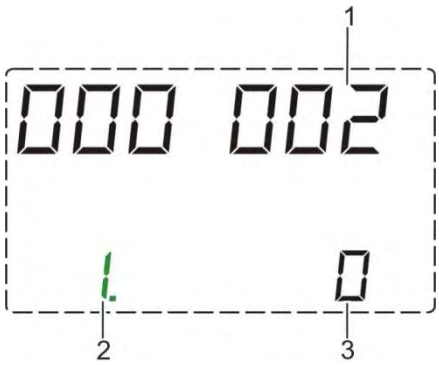


Fig. 5: Information menu

1 Menu item (code level)
2 Parameter number
3 Value range

1. Press Info.

⇨ The next parameter value is shown on the display.

In the information menu, the parameter Switch-on pressure is always shown as the first value.

After approx. 5 seconds without pressing the Info key, the display switches back to the basic display.

TKey	Parameter displayed	Parameter number	Unit of the parameter value
	Switch-on pressure	*[1]*	*[bar, MPa, psi]*
	Switch-off pressure	*[2]*	*[bar, MPa, psi]*
	Safety pressure	*[3]*	*[bar, MPa, psi]*
	Minimum pressure monitoring in BLS operation	*[4]*	*[bar, MPa, psi]*
	Minimum compressor temperature	*[5]*	*[°C, °F, Kelvin]*
	Maximum compressor temperature	*[6]*	*[°C, °F, Kelvin]*
	Hours of operation	*[7]*	*[h]*
	Load hours	*[8]*	*[h]*
	Remaining time intake filter	*[9]*	*[kh]*
	Remaining time oil liquid and oil liquid filter	*[10]*	*[kh]*
	Remaining time fine precipitator	*[11]*	*[kh]*
	Remaining time motor lubrication	*[12]*	*[kh]*
	Remaining time compressor maintenance	*[13]*	*[kh]*

2.7 *Setting parameters via code input menu*

The parameters for all basic settings of the compressor can be changed with code input as long as these changes do not influence the operational stability. However, this is only possible when the compressed air generation is switched off.

2.7.1 Calling up the code input menu

1. Press (0) and hold for three seconds.

   ⇨ The code input menu appears on the display.

2. Press (▲).

   ⇨ A 1 appears on the display.

3. Press (↵).

> *In order to exit the code input menu again, press the (0) key.*

2.7.2 Overview of code input menu

1 Currently-set code (flashing, can be changed with the (▲) (▼) keys)

Fig. 6: Code input menu

2.7.3 Inputting a code

Prerequisite: the code input menu has been called up.

1. Set the desired code with the ▲ ▼ keys.
2. To confirm the selected code, press Enter.

   ⇨ The submenu for the selected code appears on the display.

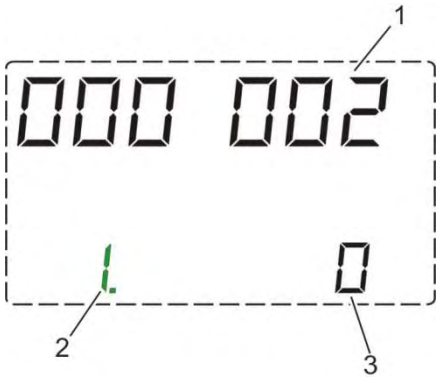
For some codes, several parameters can be input one after another. By pressing the Enter key, the next parameter is selected automatically in such cases.

2.7.4 Overview of submenus

The submenus for setting the parameters are similar in their structure. Generally, it is possible to distinguish two types:

Submenu for selection parameters (operating mode example)

The submenu for selection parameters appears for all codes for which there is an opportunity to select between different, specified setting values. For the setting of the operating mode, e.g., it is possible to select from among three specified values/operating modes.

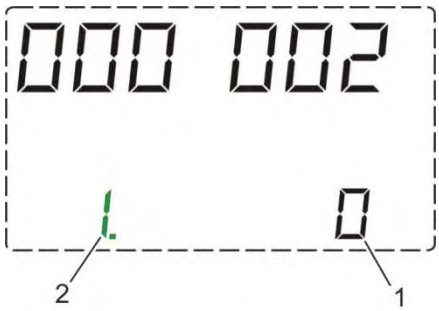


1 Menu item (code level)
2 Parameter number
3 Value range

Fig. 7: Selection parameter submenu

Submenu for value parameters (switch-on pressure example)

The submenu for value parameters appears for all codes through which a parameter can be changed without selection possibility. For the switch-on pressure, e.g., only the value of the switch-on pressure can be changed.



1 Value range
2 Parameter number

Fig. 8: Value parameters submenu

2.7.5 Select operating mode: Code 0002

By entering the code 0002, the operating mode can be selected.

1. Press (0) and hold for three seconds.
   ⇨ The code input menu appears on the display.
2. Press ▲.
   ⇨ A 1 appears on the display.
3. Press Enter.
4. Set the code 0002 with the ▲ ▼ keys.
5. To confirm the selected code, press Enter.
6. Press Info.
   ⇨ The submenu for setting the operating mode appears on the display.
7. *There are three values from which to choose:*
   - 0: Automatic operation
   - 1: Load/idle operation
   - 2: Optional automatic

   Set the desired value with the ▲ ▼ keys.
8. To confirm the selected value, press Enter.
   ⇨ The set value is saved and the code input menu appears on the display again.
9. Press (0) again to go back to the basic display.

Value	Operating mode	Description
0	Automatic operation	After reaching the switch-off pressure, the compressor switches to idle for the duration of the idle time (run-on). After the idle time has elapsed, the compressor then switches off, but it remains ready for operation. If the switch-on pressure is reached, the compressor starts up again automatically.
1	Load/idle operation	The compressor switches between "Load" and "Idle" operation; i.e. there is an unlimited run-on.

2.7.6 Switch automatic restart on/off: Code 0003

By inputting the code 0003, the automatic restart can be switched on/off after a power failure.

1. Press (0) and hold for three seconds.
   ⇨ The code input menu appears on the display.
2. Press ▲.
   ⇨ A 1 appears on the display.
3. Press Enter.
4. Set the code 0003 with the ▲ ▼ keys.
5. To confirm the selected code, press Enter .
   ⇨ The submenu for switching the automatic restart on/off appears on the display.
6. *There are two values from which to choose:*
   - 0: Automatic restart OFF
   - 1: Automatic restart ON

   Set the desired value with the ▲ ▼ keys.
7. To confirm the selected value, press Enter.
   ⇨ The set value is saved and the code input menu appears on the display again.
8. Press (0) again to go back to the basic display.

Value	Setting	Description
0	Automatic restart OFF	If the automatic restart after power failure is switched off, then after a power failure, the fault "no AC" is displayed. This fault must be acknowledged manually by pressing the (0) key. Otherwise, the compressor will not restart.
1	Automatic restart ON	If the automatic restart after power failure is switched on, the time set in the "shutdown time" parameter must elapse. If the compressor was operating before the power failure, then after this time has elapsed, it will start up again. Otherwise, the compressor will then switch to STOP mode.

2.7.7 Set on-site operation/remote operation: Code 0008

By inputting the code 0008, it is possible to switch between on-site operation and remote operation.

1. Press (0) and hold for three seconds.
   ⇨ The code input menu appears on the display.
2. Press ▲.
   ⇨ A 1 appears on the display.
3. Press Enter.
4. Set the code 0008 with the ▲ ▼ keys.
5. To confirm the selected code, press Enter.
   ⇨ The on-site operation/remote control submenu appears on the display.
6. *There are three values from which to choose:*
   - 0: On-site operation
   - 1: Remote control
   - 2: BLS-OK

   Set the desired value with the ▲ ▼ keys.
7. To confirm the selected value, press Enter.
   ⇨ The set value is saved and the code input menu appears on the display again.
8. Press (0) again to go back to the basic display.

Value	Designation	Description
0	On-site operation	The compressed air generation can only be switched on or off on the control console/display of the ICOMMAND - BASIC.
1	Remote control	The compressed air generation can only be switched on via a positive edge (24 VDC) on terminal 23 and switched off via low level (0 V) on terminal 23 or via the (0) key. This functionality is identified by the flashing text ***Remote*** on the display of ICOMMAND - BASIC. If the (0) key is pressed on the system on-site, the system switches off after 120 seconds and for safety reasons, it can only be started via remote control after the (I) key has been pressed (acknowledgement) on-site. This also applies for a start via PLANT CONTROL V/T.
2	BLS-OK	The input on terminal 23 serves to report the operational readiness of an external controller. Only with an existing high level (24 VDC) can the external controller switch between load operation and idle. During existing low level, the BLS operation is switched off automatically and the internal pressure sensor is used.

2.7.8 Set switch on/off pressure: Code 0011

By inputting the code 0011, it is possible to set the switch-on and switch-off pressure. The switch-on pressure specifies the pressure at which the switched-on compressor will begin automatically with the compression. The switch-off pressure specifies the pressure at which the compressor will be switched off automatically. However, both functions are only active in automatic operation.

1. Press (0) and hold for three seconds.
   ⇨ The code input menu appears on the display.
2. Press ▲.
   ⇨ A 1 appears on the display.
3. Press ENTER.
4. Set the code 0011 with the ▲ ▼ keys.
5. To confirm the selected code, press ENTER.
6. Press ESC.
   ⇨ The submenu for setting the switch-on pressure appears on the display.
7. *The adjustment range for the switch-on pressure is, with switch-off pressure set at the factory, between 80 psi and 155 psi.*

   Set the desired switch-on pressure with the ▲ ▼ keys.
8. To confirm the setting, press the ENTER key.
   ⇨ The set value was saved and the submenu for setting the switch-off pressure appears on the display.
9. *The adjustment range for the switch-off pressure is, with switch-on pressure set at the factory, between 100 psi and 175 psi. The upper limit for the switch-off pressure is equal to the maximum pressure.*

   Set the desired switch-off pressure with the ▲ ▼ keys.
10. To confirm the setting, press the ENTER key.
    ⇨ The set value is saved and the code input menu appears on the display again.
11. Press (0) again to go back to the basic display.

2.7.9 Switch Basic load switching mode on/off: Code 0018

By inputting the code 0018, the Basic load switching mode can be switched on/off.

1. Press (0) and hold for three seconds.
   ⇨ The code input menu appears on the display.
2. Press ▲.
   ⇨ A 1 appears on the display.
3. Press Enter.
4. Set the code 0018 with the ▲ ▼ keys.
5. To confirm the selected code, press Enter.
   ⇨ The Basic load switching mode submenu appears on the display.
6. *There are two values from which to choose:*
   - 0: Basic load switching mode is switched off
   - 1: Basic load switching mode is switched on

   Set the desired value with the ▲ ▼ keys.
7. To confirm the selected value, press Enter.
   ⇨ The set value is saved and the code input menu appears on the display again.
8. Press (0) again to go back to the basic display.

2.7.10 Switch the pressure unit: Code 0090

By entering the code 0090, the pressure unit can be switched.

1. Press (0) and hold for three seconds.
   ⇨ The code input menu appears on the display.
2. Press ▲.
   ⇨ A 1 appears on the display.
3. Press Enter.
4. Set the code 0090 with the ▲ ▼ keys.
5. To confirm the selected code, press Enter.
   ⇨ The submenu for setting the pressure unit appears on the display.
6. *There are three values from which to choose:*
   - 0: bar
   - 1: MPa
   - 2: psi (pounds per square inch)

   Set the desired value with the ▲ ▼ keys.
7. To confirm the selected value, press Enter.
   ⇨ The set value is saved and the code input menu appears on the display again.
8. Press (0) again to go back to the basic display.

Value	Pressure unit	Description
0	bar	All pressure displays will be in bar.
1	MPa	All pressure displays will be in Megapascals.
2	psi	All pressure displays will be in psi (pounds per square inch).

2.7.11 Switch the temperature unit: Code 0095

By entering the code 0095, the temperature unit can be switched.

1. Press (0) and hold for three seconds.
   ⇨ The code input menu appears on the display.
2. Press ▲.
   ⇨ A 1 appears on the display.
3. Press Enter.
4. Set the code 0095 with the ▲ ▼ keys.
5. To confirm the selected code, press Enter.
   ⇨ The submenu for setting the temperature unit appears on the display.
6. *There are three values from which to choose:*
   - 0: °C
   - 1: °F
   - 2: K

   Set the desired value with the ▲ ▼ keys.
7. To confirm the selected value, press Enter.
   ⇨ The set value is saved and the code input menu appears on the display again.
8. Press (0) again to go back to the basic display.

Value	Pressure unit	Description
0	Degrees Celsius	All temperature displays will be in °C.
1	Degrees Fahrenheit	All temperature displays will be in °F.
2	Kelvin	All temperature displays will be in Kelvin.

2.7.12 Display the software version: Code 9999

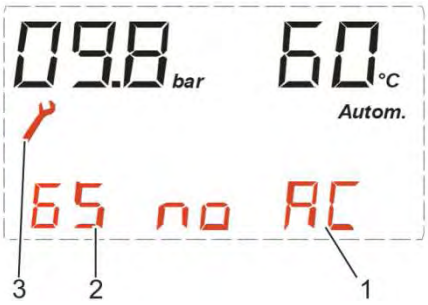
By inputting the code 9999, the software version can be displayed.

1. Press (0) and hold for three seconds.
   ⇨ The code input menu appears on the display.
2. Press ▲.
   ⇨ A 1 appears on the display.
3. Press Enter.
4. Set the code 9999 with the ▼ keys.
5. To confirm the selected code, press Enter.
   ⇨ The software version appears on the display.
6. Press the (0) key again to go back to the code input menu.

2.8 *Fault and warning messages*

2.8.1 Fault message

> *When a fault occurs, the compressor switches off and it can only be switched on again after the cause of the fault has been eliminated. Subsequently, the fault message must be acknowledged with the (0) key.*



1 Fault abbreviation
2 Fault number
3 Fault symbol

If a fault occurs during operation, a fault message (Fig. 9) and the fault symbol appear on the display. If a fault occurs, the compressor switches off.

Fig. 9: Fault message

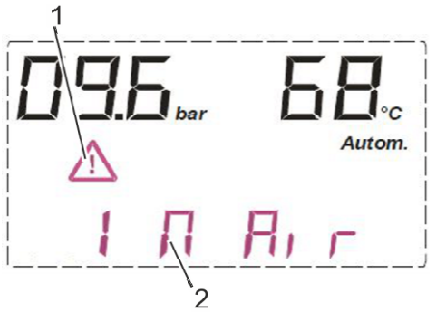
2.8.1.1 Fault table

Fault no.	Fault abbreviation	Cause of the fault	Fault remedy	Personnel
61	EProm	Eprom faulty	Replace controller	Qualified electrician
63	PAr	Parameter incorrect	Check and change pressure set points	Trained person
65	no AC	Power fail	Check power supply	Qualified electrician
66	SE t	Temperature sensor faulty	Check cabling of temperature sensor/replace temperature sensor	Qualified electrician
67	SE t2	Oil liquid temperature sensor faulty	Check cabling of oil liquid temperature sensor/Replace oil liquid temperature sensor	Qualified electrician
68	SE P	Pressure sensor faulty	Check cabling for pressure sensor/replace pressure sensor	Qualified electrician
70	SE t3	Cable definition dew point temperature (if additional module MK200-4AE4R)	Check cabling of dew point sensor/as necessary Replace dew point sensor	Qualified electrician
71	EmErG	Emergency stop pressed	Eliminate cause of emergency stop	Trained person
72	rotAt	Direction of rotation of the motor incorrect	Set correct direction of rotation of the motor	Qualified electrician
73	Mot t	Motor temperature too high	Let motor cool off	Trained person
74	hiCur	Ventilator flow too high	Check ventilator flow	Qualified electrician
75	hi Pr	Network pressure too high	Reduce network pressure	Trained person
77	hi t	Compressor temperature too high	Let compressor cool off	Trained person
78	hi P	Network pressure too high	Reduce network pressure	Trained

Fault no.	Fault abbreviation	Cause of the fault	Fault remedy	Personnel
				person
81	FC	Frequency converter fault	Check frequency converter	Qualified electrician
82	diF P	Differential pressure fine precipitator too high	Set differential pressure fine precipitator	Manufacturer
89	modul	Fault of EA module (reports a failure or does not respond)	Check cabling/EA module	Qualified personnel
90	dP Mi	Dew point temperature too low	Set dew point	Qualified personnel
91	dP MA	Dew point temperature too high	Set dew point	Qualified personnel

If a fault not listed in the fault table occurs, contact the manufacturer immediately.

2.8.2 Warning/maintenance messages



1 Warning symbol
2 Warning number

If an unexpected change to parameters occurs during operation, a warning message and the warning symbol ⚠ appear on the display. However, in comparison to the fault message, the compressor does not switch off.

Fig. 10: Warning/maintenance message

2.8.2.1 Warning table

Warning no.	Waning abbreviation	Cause of warning	Warning remedy	Personnel
1	M Air	Intake filter maintenance due	Change intake filter	Qualified personnel
2	M Oil	Maintenance oil liquid/oil liquid filter due	Change oil liquid filter	Qualified personnel
3	M SEP	Maintenance of fine precipitator due	Maintain fine precipitator	Qualified personnel
4	M Mot	Maintenance motor lubrication due	Lubricate motor	Qualified personnel
5	M Con	Maintenance of compressor due	Maintain compressor	Qualified personnel
6	M dry	Maintenance dryer due	Maintain dryer	Qualified personnel
21	hi t	Compressor temperature increased	Let compressor cool off	Trained person
22	hi P	Network pressure increased	Reduce network pressure	Trained person
23	Cold	Compressor temperature too low	Warm up compressor	Trained person
24	Min P	Lower pressure threshold reached	Check BLS network	Qualified personnel
25	OilHE	Oil level/heating	Check wiring	Qualified personnel
26	dEFEC	Comparison parameter incorrect	Replace controller	Manufacturer
35	dP tE	Dew point temperature > dew point max.	Check dryer	Qualified personnel
38	dP Mi	Dew point temperature too low	Set dew point	Qualified personnel
39	dP MA	Dew point temperature too high	Set dew point	Qualified personnel
44	modul	Warning EA module	Check EA module	Qualified personnel

If a fault not listed in the warning table occurs, contact the manufacturer immediately.

2.8.3 Acknowledging fault and warning messages

NOTICE!
Danger of property damage due to improperly performed fault remedy/maintenance work!

Acknowledgement of fault and warning messages without properly-executed fault remedy/maintenance work can cause severe damage to the compressor on through to total failure.

- Only have fault remedy/maintenance work performed by qualified personnel.
- Only acknowledge fault and warning messages if fault remedy/maintenance work has been performed properly.

Acknowledging a fault message

1. Press (0) .

   ⇨ The fault message on the display goes out.

Acknowledging a warning message

1. Press (0) .

   ⇨ The fault message on the display goes out.

3 Index

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