TONE

REVOLUTION

IN BREWING & EXTRACTION

NITRO

AUGUST 2022
VERSION 2.0

STOP WASTING ENERGY

Specialty Coffee Association

EUROPEAN SPECIALITY TEA ASSOCIATION MEMBER

NITRO INSTALLATION AND USER INSTRUCTION

DISCLAIMER

Congratulations on purchasing your new TONE product. The information in this document affects your safety and your legal rights and responsibilities. Read this entire document carefully to ensure proper configuration before use. Failure to read and follow instructions and warnings in this document may result in serious injury to yourself or others, damage to your TONE product, or damage to other objects in the vicinity. This document and all other collateral documents are subject to change at the sole discretion of TONE. For up-to-date product information, visit http://www.tone-swiss.com and click on the product page for this product.

By using this product, you hereby signify that you have read this disclaimer and warning carefully and that you understand and agree to abide by the terms and conditions herein. You agree that you are solely responsible for your own conduct while using this product, and for any consequences thereof. You agree to use this product only for purposes that are proper and in accordance with all applicable laws, rules, and regulations, and all terms, precautions, practices, policies and guidelines TONE has made and may make available.
TONE accepts no liability for damage, injury or any legal responsibility incurred directly or indirectly from the use of this product. The user shall observe safe and lawful practices including, but not limited to, those set forth in this document.

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TABLE OF CONTENS

1. INTRODUCTION / GENERAL

1.1 GENERAL

This manual provides essential information for safe operation of your NITRO dispensing system / cold beverage processing system. Please therefore read the enclosed safety instructions carefully.

This applies in particular to safety during installation, operation and cleaning. Please keep this manual in a safe place where it is accessible to all users.

Errors and technical changes reserved. The TONE Kaffeemaschinen AG (in accordance with its policy) is constantly developing the products further. The TONE Kaffeemaschinen AG therefore reserves the right to make changes and improvements to the product described in this documentation without prior notice.

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Please read the operating instructions carefully before use and keep them in a way that they are accessible to all users!

WARNING SIGN
ATTENTION!

MANDATORY SIGN!
PLEASE READ IT.

INFORMATION SIGN!
INFORMATION.

1.2 UNPACKING THE DEVICE

WARNING!
Check immediately whether any damage can be seen on the outer packaging of the device.

Check immediately whether any damage can be seen on the outer packaging of the device. Immediately report any damage to the transporter or contract partner and document it.

If you do not do this as an entrepreneur, the goods will be considered „approved“ and the recipient will no longer be able to rely on the transport damage later.

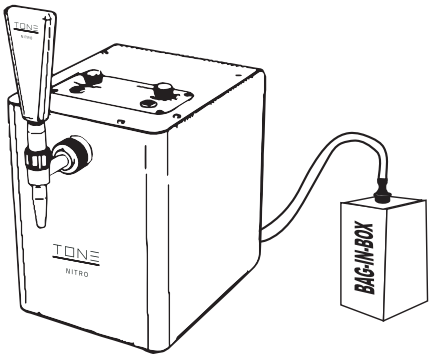
After you have carefully unpacked the device, please check whether the device has any external damage.

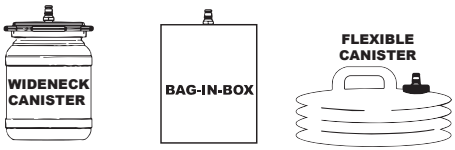
Keep the packaging in case the device may have to be shipped by a forwarding agent. The packaging materials (boxes, plastic bags) must never be allowed to fall into the hands of children. **If any defects or damage to the device are found, please inform the dealer where you purchased the device immediately so that the matter can be dealt with.**

1.3 MODE OF OPERATION

This cold beverage processing system combines various functionalities in one device:

- **Designed for bag-in-box applications/ sucking a beverage from a pressureless container**
- Vacuum switch switches off automatically when the bag-in-box is empty
- Designed for Cold Brew Coffee and certain other beverages. Suitable for operation with air, nitrogen and CO2 and adjustable via „NITRO CONTROL PANEL“ on the unit or external gas supply
- Enrichment of the drink with atmospheric nitrogen (78%)
- Cooling the beverage in the appliance Cooling block
- Tapping the drink in stout-style





1.4 REQUIREMENTS FOR THE BEVERAGES

WARNING!
The liquids must be filtered to a filtration grade of at least 100 µm!

This device was primarily developed for use with Cold Brew Coffee. However, use with other beverages such as tea is also possible if guidelines are followed.

The liquids used must be consumable liquids. High-proof spirits, syrups as well as not filtered liquids are forbidden. It is essential to note that the liquids must be filtered to a filtration grade of at least 100 Qm (100 microns) (cf. common disposable filters made of filter paper), otherwise the pump inside the device or the PERLATOR UNIT may become clogged and the device will be damaged. Furthermore, it should be noted that it is essential to clean the device after use with fresh beverages. Only when used with pasteurized beverages do other cleaning intervals apply.

Read „CLEANING PLAN AND INTERVAL“ for information on cleaning-related issues. Non-compliance will void the warranty!

1.5 TECHNICAL SPECIFICATION

SCHULTES MASCHINENBAU GMBH
Am Beetacker 5
63856 BESSENBACH,
DEUTSCHLAND

TONE

P290

Produkt / Product:	Getränkezubereitungssystem / Beverage preparation system
Typ / Type:	TONE NITRO
Baujahr / Date of manufacture:	2021
Klimaklasse / Climate class:	N
Kühlmittel / Refrigerant:	R290 (50g)
Masse/ Weight:	24 kg
Serien-Nr. / Serial - No.:	TONE-2021-30-1001
1/N/PE AC 230 V 50 Hz 1,6 A	

The weight refers to the machine without attachments.

1.6 DECLARATIONS

We declare under its sole responsibility that the product „NITRO 2.0“ to which this declaration refers, complies with the following directive(s) and standard(s):

LIST OF TECHNICAL REGULATIONS:

- Richtlinie 2006/42 / EG - Maschinenrichtlinie
- Richtlinie 2014/30 / EU - Elektromagnetische Verträglichkeit (EMV)
- Richtlinie 2011/65 / EU - Beschränkung gefährlicher Stoffe (RoHS)
- NSP-Richtlinie neu 2014/35/EU

CE All parts in contact with the medium/liquid and sealants used in this device comply with the requirements of the FDA (Food and Drug Administration) and/or are made of stainless steel.

2. SAFETY REGULATIONS

2.1 GENERAL SAFETY REGULATIONS

This device corresponds to the current state of the art. Operational safety is only guaranteed if the operating instructions are followed. Work instructions must be followed taking into account the following dangers.

During the installation and operation of the NITRO dispensing system we also point out that the following relevant laws, ordinances, guidelines and regulations must be observed and complied with:

1. Equipment and product safety law - GPSG
2. Occupational Safety and Health Act - ArbSchG
3. Industrial safety ordinance - BetrSichV
4. Food hygiene regulation – LMHV
5. Beverage Dispensing Systems Ordinance - SchankV (until 30.06.2005)
6. Technical rules for beverage dispensing systems (TRSK and DIN standards)
7. Ordinance on Hazardous Substances (Gefahrstoff V)
8. Generally accepted rules of technology

Relevant country-specific rules, guidelines and regulations are to be applied. Conversions or changes to safety-relevant components or elements are generally prohibited and automatically lead to the expiration of the manufacturer‘s warranty.

▪ **Check the device at least once a day for visible damage and defects.** Contact a qualified service technician if you need to make any changes or repair work. The power cord may only be replaced by authorized service personnel. Use only original spare parts and accessories.

▪ Make sure that **only authorized personnel work on the device** and that the operating personnel is provided with operating instructions and this user manual.

▪ Make sure that no unauthorized person changes settings on the device or interferes with the device.

We accept no liability for damage resulting from the use of non-original spare parts or accessories, as well as from improper handling or use outside the device‘s intended purpose.

2.2 ELECTRICAL HAZARD

Electric shock can be fatal or lead to serious injury! Unauthorized interference with the electrical system is therefore strictly prohibited. Water and electricity produce a deadly mixture!

The device is supplied with a moulded safety plug and may only be connected to a grounded safety socket. If there is no corresponding socket outlet with earthing contact, the connection may only be carried out by authorised personnel, whereby the regulations valid at the place of installation (e.g. in Germany VDE-DIN standard) must be observed.

2.3 OPERATING OVERPRESSURE

Some components are under overpressure during operation and are therefore a potential source of danger. Do not loosen or dismantle any parts that are under excess operating pressure.

2.4 DANGER DUE TO OPERATIONAL COOLING

The evaporation temperature in the coolant circuit can be as low as -10°C. There is therefore a potential source of danger if maintenance, servicing, cleaning etc. are carried out on components at the appropriate temperature without suitable protective measures.

2.5 DANGER DUE TO OPERATIONAL HEATING UP

Do not touch the compressor, condenser, motors and piping and in particular the radiator grille on the rear of the device, as these parts can heat up during operation, which may cause injury if touched.

2.6 DANGER FROM SHEET EDGES

There is a residual risk of injury at sheet edges and corners despite constructive prevention.

2.7 DANGER DUE TO FLAMMABLE REFRIGERANT

The unit is filled with 50g of flammable refrigerant (R290). Due to the design and other precautions, the risk of flammability can be excluded as far as possible.

3. REQUIREMENTS FOR THE LOCATION OF OPERATION

3.1 GERNERAL REQUIREMENTS

Please also observe the technical regulations for beverage dispensing systems TRSK 400 „Installation of beverage dispensing systems“.

Low voltage can damage the compressor. The same applies if several units are supplied with power via one power connection.

The power plug must be freely accessible.

3.2 ELECTRICAL CONNECTIONS

(see 1.6 Technical specification)

FUSE PROTECTION:
max. 1,6 A
VOLTAGE:
1/N/PE AC 230 V 50 Hz 1,6 A
POWER: 300 W

3.3 LOCATION OF OPERATION

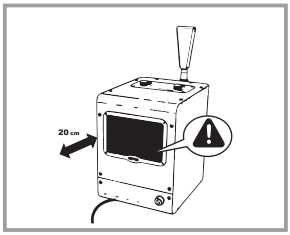
Adequate ventilation and extraction must be ensured. For this purpose **the distance to the next wall should be at least 20 cm.**

Attention:

- Never cover and/or block the air slots. Otherwise there will be insufficient cooling capacity and the cooling system may fail.

- Never place the device near heat sources or direct sunlight.

- Under no circumstances should liquid enter the device, otherwise there is a danger of short circuit!

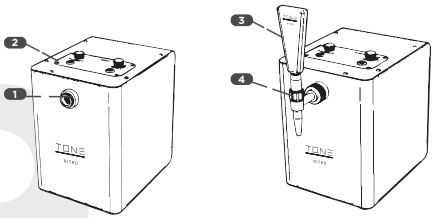


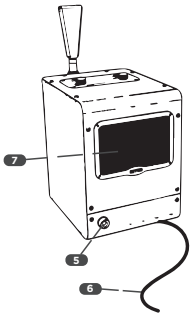
4. DESCRIPTION OF THE DEVICE

4.1 GRAPHIC ILLUSTRATION OF THE DEVICE

These instructions are valid for all variantes of the NITRO 2.0 Series.

NITRO 2.0

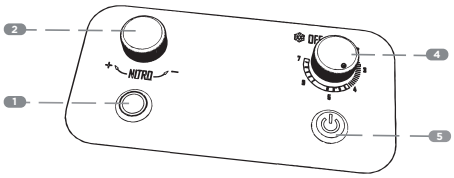




1. MIXER HOUSING
2. NITRO CONTROL PANEL
3. HANDLE
4. TAP
5. BEVERAGE CONNECTION
6. POWER CABLE
7. COOLING GRILL

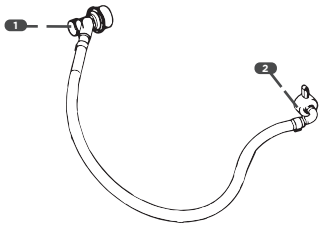
4.2 GRAPHIC ILLUSTRATION “NITRO CONTROL PANEL”

NITRO 2.0



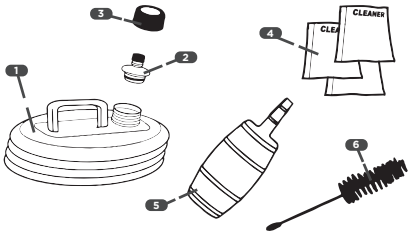
1. NITRO-SWITCH ON/OFF
2. NITRO CONTROL DIAL
4. COOLING CONTROL DIAL
5. DEVICE SWITCH ON /OFF

4.3 GRAPHIC ILLUSTRATION “SUCTION HOSE”



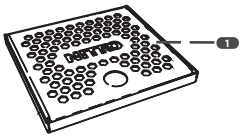
1. NC PLUG-IN CONNECTOR
2. SCREW CONNECTION WITH WING NUT

4.4 GRAPHIC ILLUSTRATION “CLEANING SET”



1. CLEANING CANISTER
2. CONNECTOR
3. UNION NUT
4. CLEANING POWDER
5. CLEANING BALL
6. CLEANING BRUSH

4.5 GRAPHIC ILLUSTRATION “DRIP TRAY”



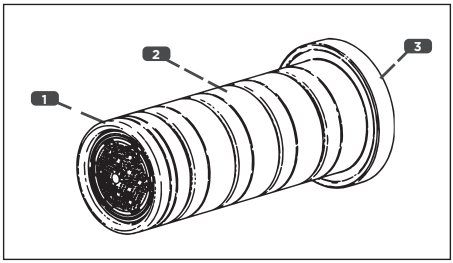
1. DRIP TRAY “SMALL”

4.6 SCOPE OF DELIVERY

Article No	Name	Description
TO-103010	PERLATOR-UNIT	PERLATOR-UNIT CONSITING OF: 1X TO-103011-FRONT-PERLATOR A “GREEN” 1X TO-103012-MIDDLE-PERLATOR B “GREEN” 1X TO-103013-END-PERLATOR C “GREEN”
TO-108010	O-RING SET (ALL)	SPARE O-RING SET CONSITING OF: 1X SEALING RING FOR SUCTION HOSE (TRANSPARENT) 4X O-RING PERLAOT UNIT (RED) 2X O-RAING PERLAOT UNIT (BLACK)
TO-104014	HANDLE	HANDLE
TO-105010	SUCTION HOSE WITH NC/CMB - CONNECTION	SUCTION HOSE FOR NITRO WITH NC/CMB CONNECTION, 2M LENGHT
TO 106018	DRIP TRAY “NITRO”	DRIP TRAY FOR NITRO DISPENSING SYSTEM, SMALL
TO-103010	QUICKMANUAL	QUICK START GUIDE LAMINATED IN PROTECTIVE FOIL;
TO-107010	CLEANING POWDER	3X PACKAGS RELIABLE QUALITY CLEANER WITH ACTIVE OXYGEN FOR REGULAR ALKALINE CLEAINING;
TO-106010	CLEAINING CANISTER 5L	FOLDING CLEANING CANISTER WITH 5L CAPACITY AND NC NC/CMB - CONNECTION
TO-107014	CLEANING BALL	BEVI CLEAN BALL, TRANSPARENT THROUGHOUT, NO GAPS AND VALVES, FOR INTERIOR AND EXTERIOR CLEANING
TO-107015	CLEANING BRUSH	CLEANING BRUSG FOR CLEANING THE MIXER HOUSING

5. INSTALLATION (STEP BY STEP)

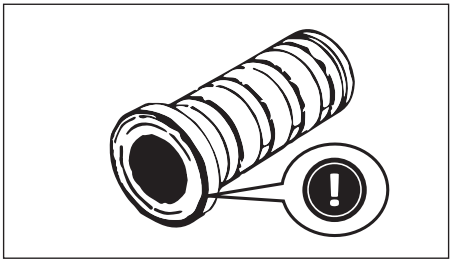
5.1 LOCATION OF OPERATION



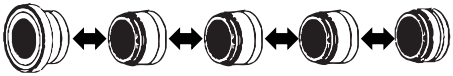
1 Front-Perlator A (incl. 2 x black O-rings)

2 Middle-Perlator B (3 pcs.)

3 End-Perlator C (has two grooves)



Attention:
Pay attention to the O-rings! These are located in a groove on the front and rear side of the FRONT PERLATOR A!

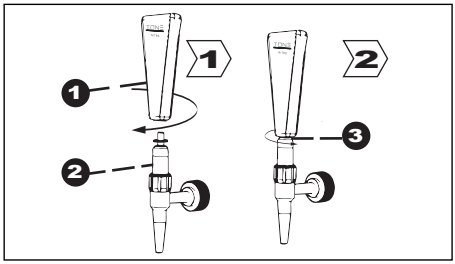


A ventilated perlator does not present a significantly increased risk of aerosol formation. The supplied nitrogen is sufficiently cleaned by air filters.

To prevent the perlators from being contaminated with biofilm growth, the individual perlators (Perlator - A „green“, Perlator - B „green“, Perlator - C „green“) must be cleaned after use. In addition, the inserts (103019 Perlator spare part „green“) should be replaced at regular intervals. Read „MAINTENANCE“ for information on cleaning

In the front piece Perlator - A „green“ there are two O-rings: one at the front and one at the back. Make sure that the O-rings are in the notch of the stainless steel part before inserting the perlator-unit into the mixer Housing. If the O-rings are missing, the tap cannot seal and the unit will drip on the mixer Housing

5.2 ASSEMBLY OF THE TAP-UNIT



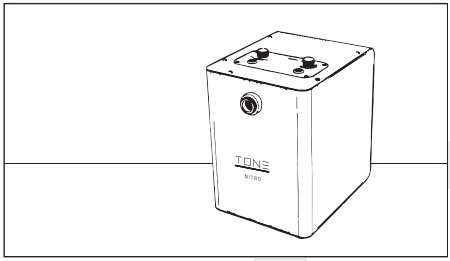
1 HANDLE

2 TAP

3 CONTER NUT

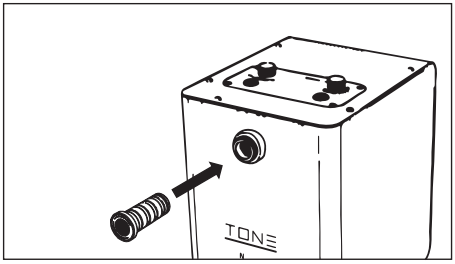
Screw the HANDLE onto the TAP HANDLE. Then lock it with the CONTER NUT.

5.3 FIRST TIME INSTALLATION

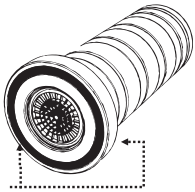


Place the device in its place.

Attention:
Keep ventilation and exhaust air slots free and do not block them under any circumstances! When installing the device at a new location for the first time, it must be left to stand quietly for at least 30 min. before use.

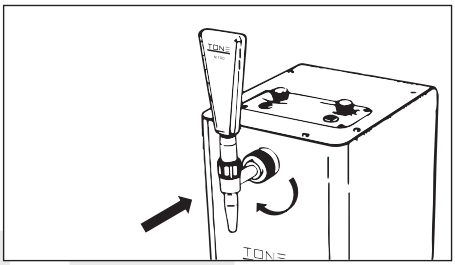


Insert PERLATOR UNIT into MIXER HOUSING.



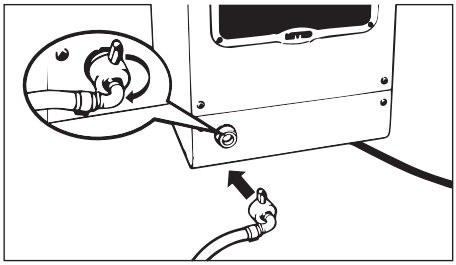
2 X O-RING

Attention:
Pay attention to the O-rings! These are located in a groove on the front and rear side of the FRONT PERLATOR A!



Screw the TAP HANDLE UNIT onto the external thread of the MIXER HOUSING and tighten lightly (hand-hot).

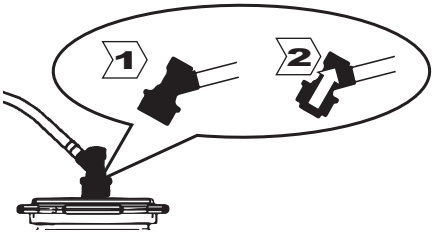
Attention:
Under no circumstances should pliers be used for tightening!



Screw the SUCTION HOSE WITH THE SCREW CONNECTION to the rear opening (BEVERAGE CONNECTION).

Attention:
Clean the SUCTION HOSE WITH SCREW CONNECTION and the BEVERAGE CONNECTION with disinfectant spray before use.

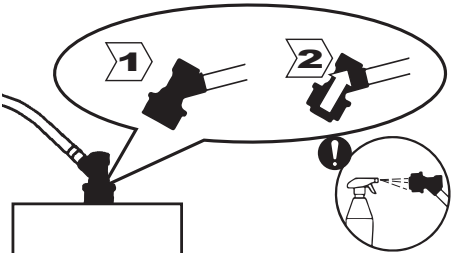
5.4 CONNECTION OF THE SUCTION HOSE



Open the valve on the connector by pulling the snap lock upwards and plug it onto the coupling.

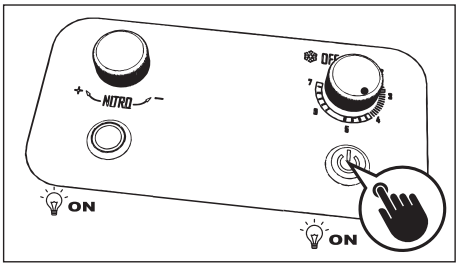
Attention:
Plug the connector flush onto the coupling. Make absolutely sure that the connector is plugged flush

onto the coupling, otherwise the system will suck in air as well and the system will „spit“ air when tapping and/or the valve inside the connector will not open and the system will not suck in fluid.



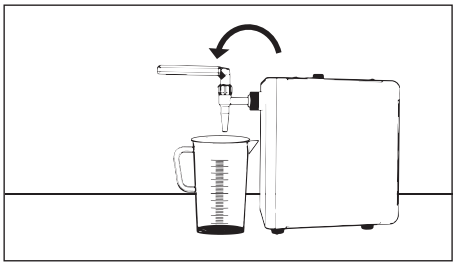
Attention:
Each time the CONNECTOR is reconnected to the NC/ CMB CONNECTION, the coupling must be cleaned using a disinfectant spray.

5.5 SWITCHING ON THE DEVICE/READY FOR OPERATION



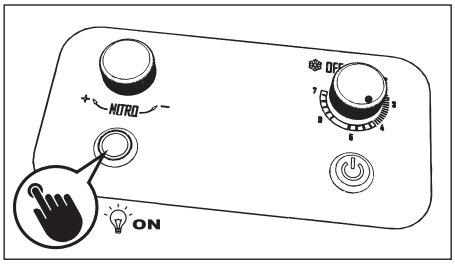
Press the DEVICE SWITCH in the NITRO CONTROL PANEL so that it clicks into place and lights up. The unit starts automatically and switches off after reaching the set temperature and pressure.

Attention:
The unit is ready for operation after approx. 15 - 25 min.



Place the glass under the TAP and pull the HANDLE forward by 90°. The machine sucks in the liquid and after a short time it flows out of the tap cooled.

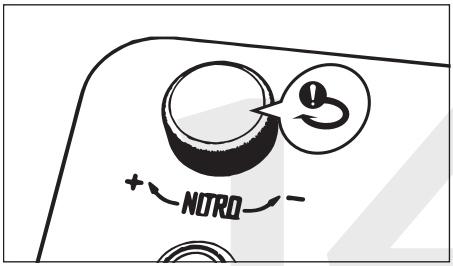
To stop the dispensing process, flip the HANDLE back up.



Press the NITRO SWITCH in the NITRO CONTROL PANEL so that it locks into place and lights up. The NITRO function is now activated.

Now the NITRO settings can be made to adjust the foaming. More information under „5.6 Setting the foaming“.

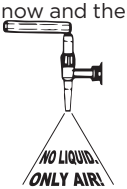
5.6 SETTING THE NITRO EFFECT/ FOAMING



TURN FOR MORE NITRO TO THE RIGHT / CLOCKWISE!

TURN FOR LESS NITRO TO THE LEFT / COUNTERCLOCKWISE.

Attention:
The fine adjustment is very sensitive and should therefore only be carried out in 5-10° steps. Tap in between every now and then and check the result.



If the system only emits air, proceed as follows:

1. Close tap (fold tap handle upwards again).
2. Turn rotary switch „NITRO“ at least half a turn (180°) to the left.
3. Place a glass underneath and pull the tap handle forward by 90°.
4. If the result still does not meet your requirements, repeat step 2-3.

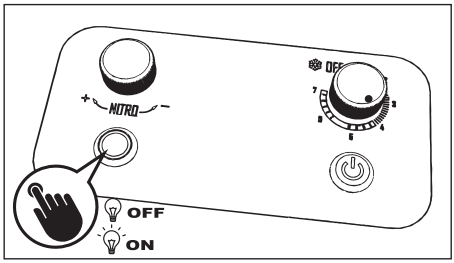
A total of about eight (8) rotations are possible. As soon as liquid flows out of the tap, fine adjustment (1-2° steps) can be made during tapping.

The system takes over the adjustment as soon as a „Pfff“ sound is heard.

If your system is only emitting air, you can do a SYSTEM RESET.

1. To do this, turn the NITRO dial counterclockwise until you reach a stop. A total of about eight (8) rotations are possible.
2. Then tap. The system should now only dispense liquid despite activated NITRO (after 2 glasses at the latest).
3. Turn clockwise for two full turns. Now proceed as usual when setting the NITRO effect.

5.7 NITRO OR PURE-MODE

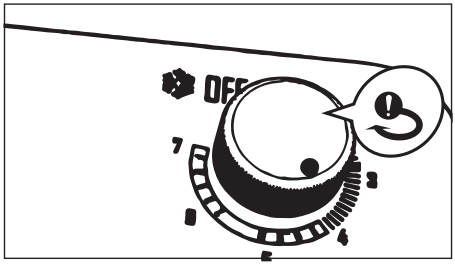


Press the NITRO SWITCH in the NITRO CONTROL PANEL so that it clicks into place and lights up. The NITRO function is now activated.

Press the NITRO SWITCH in the NITRO CONTROL PANEL so that it no longer engages and stops glowing. The NITRO function is now deactivated.

Attention:
If NITRO is deactivated, it may well be that approx. 1-2 glasses still comes out with NITRO, since there was still pressure in the system shortly before.

5.8 SETTING THE COOLING



Turn the COOLING CONTROL DIAL clockwise for more cooling and counterclockwise for less cooling.

Attention:
The setting of 1-4 are ideal

for cold brew and tea. From 5-7 the cooling block can freeze!!!

6. HYGIENE AND CLEANING

6.1 HYGIENIC HANDLING

Please note the respective national regulations for cleaning dispensing systems valid at the installation site. Since the device is basically a beverage dispensing system, we recommend that you clean the beverage lines in accordance with the applicable cleaning regulations in accordance with TRSK 501 „Cleaning of beverage dispensing systems“. We also refer to DIN 6650-6 („Requirements for cleaning and disinfection of beverage dispensing systems“)

WARNING

There is a risk of severe burns when handling cleaning fluids! Always observe the safety data sheets during cleaning work, wear protective goggles, gloves and appropriate clothing!

▪Before every connection and every change of beverage type, pipes and connecting parts and tap fittings must be cleaned.

▪Parts that come into contact with air and drink must be cleaned daily (especially tap outlets).

▪Follow the instructions of the detergent manufacturer. Only use cleaning agents that also meet the requirements of ASI 6.84 and DIN 6650-6 for cleaning.

6.2 CLEANING SCHEDULE

Please note that different cleaning intervals apply depending on the beverage and that the device must be rinsed regularly with water. The national legal requirements and regulations apply!

The hygiene of the device is the sole responsibility of the user! The following information is only recommendations!

NAME	DESCRIPTION	WHEN AND HOW?
COLD BREW COFFEE AND TEA (FRESH)	COLD BREW (WITH/WITHOUT ADDITIVES) FRESHLY PREPARED	DAILY, WATER AND DRY CLEANING
COLD BREW COFFEE AND TEA (PASTEURIZED)	COLD BREW (WITH/WITHOUT ADDITIVES) FRESHLY PREPARED	EVERY 7 DAYS, WATER AND DRY CLEANING
FRUIT JUICE CONCENTRATES (WITHOUT FRUIT PULP)	FRUIT JUICE CONCENTRATES (WITHOUT FRUIT PULP) WITH/WITHOUT ADDITIVES FRESHLY PREPARED	DAILY, WATER AND DRY CLEANING
WINE, OTHER ALCOHOLIC BEVERAGES	WINE, OTHER ALCOHOLIC BEVERAGES	DAILY, WATER AND DRY CLEANING

6.3 EQUIPMENT AREAS TO BE CLEANED

In general, the appliance must always be cleaned after use with freshly prepared drinks, i.e. with a chemical cleaner and subsequent water rinse. This prevents the appliance from being contaminated and the beverage lines from taking on a different taste.

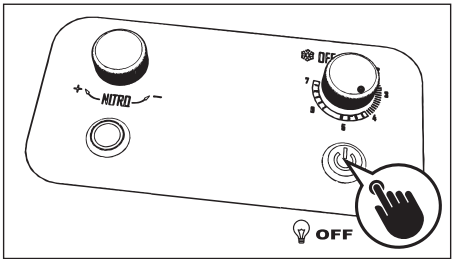
NAME	DESCRIPTION	WHEN AND HOW?
TAP OUTLET NOZZLE (INSIDE AND OUTSIDE)	WARM WATER, CLEANING BRUSH	DAILY
MIXER HOUSING	WARM WATER, CLEANING BRUSH	DAILY
TAP (OUTSIDE)	WARM WATER, CLEANING BRUSH	DAILY
CONNECTOR (INSIDE AND OUTSIDE)	DESINFECTANT SPRAY	WHENEVER THE BAG-IN-BOX IS RECONNECTED AND RECON-NECTED, ESPRECIALLY AFTER PIPE CLEANING
PERLATOR-UNIT	WARM WATER, CLEANING BRUSH	DAILY
BEVERAGE CONNECTION	DESINFECTANT SPRAY	WHENEVER THE BAG-IN-BOX IS RECONNECTED AND RECON-NECTED, ESPRECIALLY AFTER PIPE CLEANING
COMPLETE SYSTEM	WARM WATER, CLEANING BRUSH	EVERY 7 DAYS, WATER AND DRY CLEANING

6.4 APPROVED CLEANING AGENTS

Other cleaning agents may only be used after consultation with and with the express permission of the manufacturer, otherwise the guarantee may be invalidated.

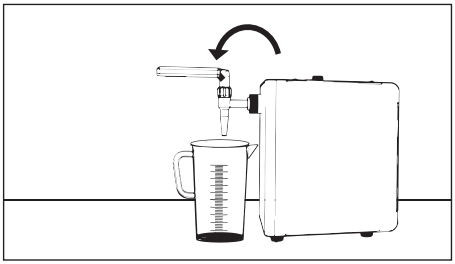
Article Nr.: 107010
Name: TM Desana Max fp
Producer: Thonhauser GmbH (AT)
Description: Chlorine-free disinfectant cleaner with „colour indicator“ in powder form;

6.5 PREPARATION / SWITCH OFF DEVICE AND REMOVE TAP UNIT



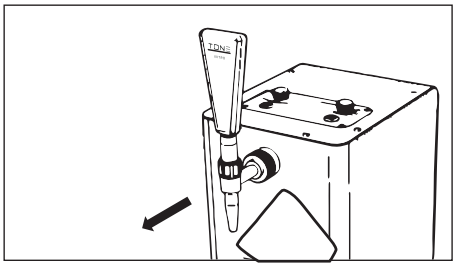
Press the DEVICE SWITCH in the NITRO CONTROL PANEL so that it is no longer engaged and stops glowing. The device is now switched off.

Attention:
The system is still pressurized after the power is turned off. Be sure to continue with the next step!



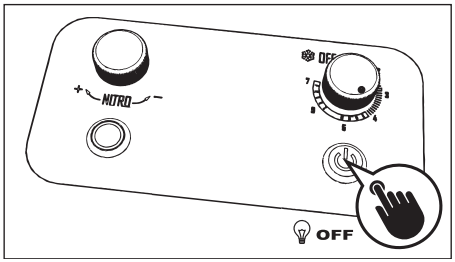
Place the glass under the TAP and pull the HANDLE forward by 90° so that the remaining pressure or liquid can escape from the device.

6.6 CLEANING OF THE TAP UNIT



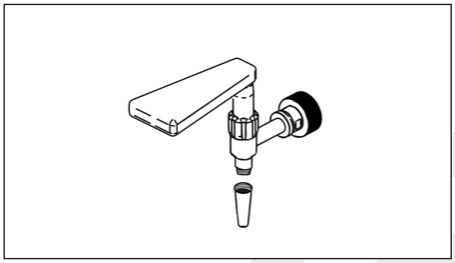
Unscrew the TAP HANDLE UNIT from the external thread of the MIXER HOUSING.

Attention:
We recommend keeping a cleaning towel underneath to catch any liquid that may leak out.



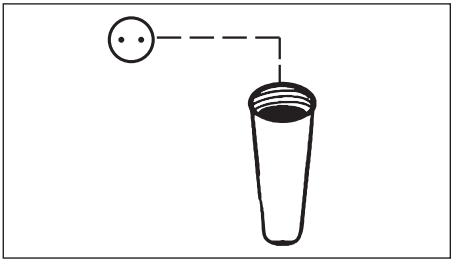
Press the DEVICE SWITCH in the NITRO CONTROL PANEL so that it is no longer engaged and stops glowing. The device is now switched off.

Attention:
The system is still pressurized after the power is turned off. Be sure to continue with the next step!



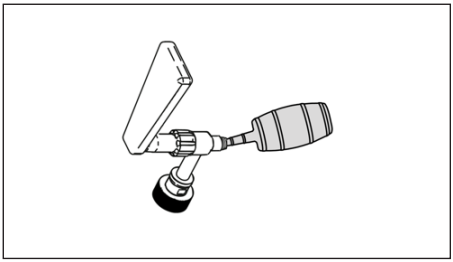
Unscrew OUTLET from TAP UNIT.

Attention:
Depending on the order, a different tap model is included. The illustration may differ.

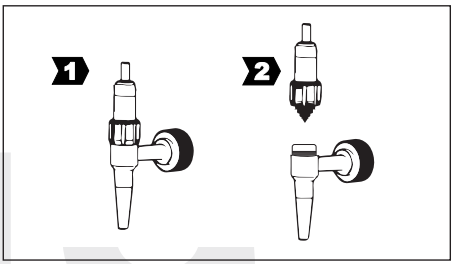


CHECK PIPE and flush with water.

Attention:
Depending on the perforated plate, the flow rate and foam formation can be influenced.

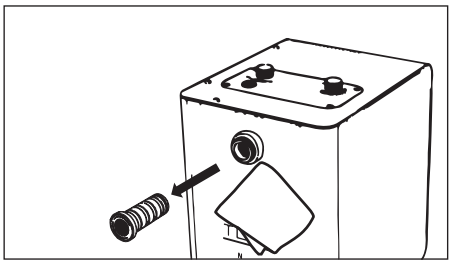


Flush the TAP UNIT with water. To do this, place the tap handle 90° to the front and then rinse with warm water using the included CLEANING BOTTLE.



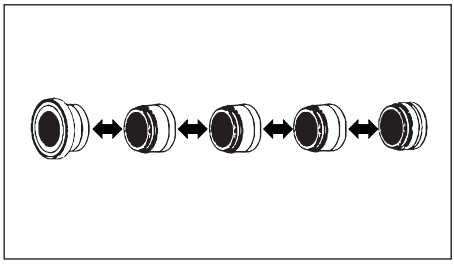
Unscrew the TAP VALVE and rinse with water.

6.7 CLEANING OF THE PERLATOR UNIT AND THE MIXER HOUSING



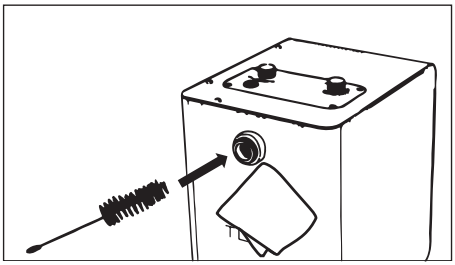
Unscrew the TAP HANDLE UNIT from the external thread of the
MIXER HOUSING.

Attention:
We recommend keeping a cleaning towel underneath to catch any liquid that may leak out.



Unscrew the PERLATOR UNIT and rinse it with water. If heavily soiled, place in a suitable cleaning solution.

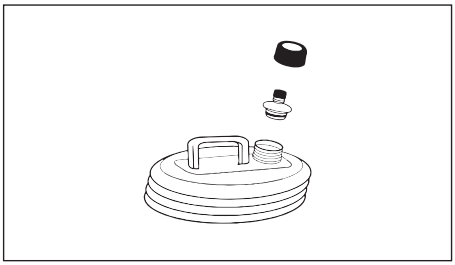
Attention:
With some chemical cleaners, the stainless steel rings may become slightly discolored.



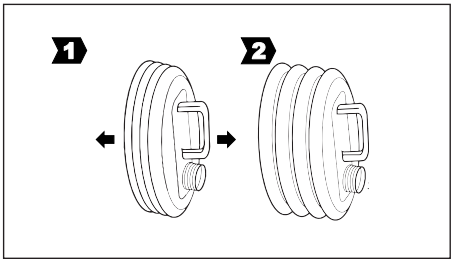
Clean the MIXER HOUSING mechanically using the supplied CLEANING BRUSH and then rinse with CLEANING BOTTLE.

Attention:
We recommend keeping a cleaning towel underneath to catch any liquid that may leak out.

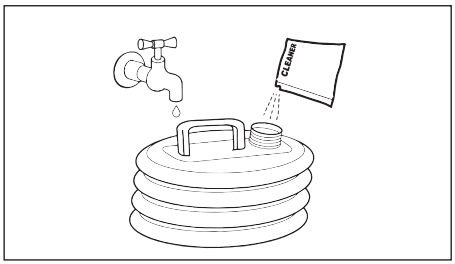
6.8 PREPARATION OF THE CLEANING LIQUID



Unscrew the black plastic UNION NUT from the cleaning canister and remove the NC CONNECTION.



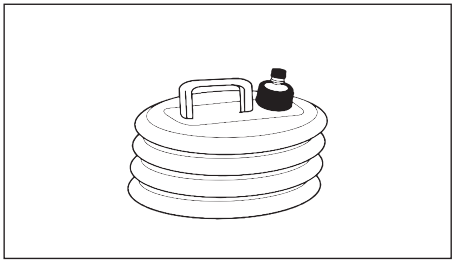
Take the CLEANING CANISTER by the handle and pull it apart slightly so that the volume is increased.



Fill the CLEANING POWDER into the CLEANING CANISTER.

Afterwards pour lukewarm water into the CLEANING CANISTER.

Attention:
Always wear gloves when using cleaning agents!

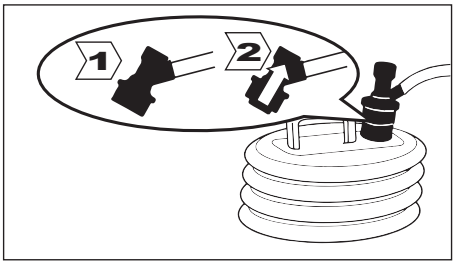


Carefully release the remaining air from the CLEANING CANISTER.

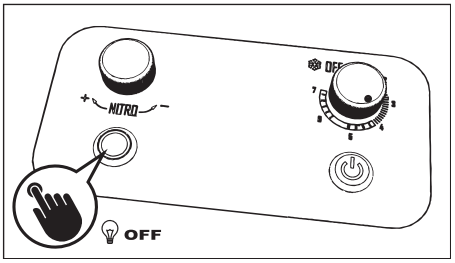
Reinsert the NC/CMB CONNECTION into the opening provided for this purpose and screw it tight using the plastic UNION NUT.

Attention:
The less air in the tank, the better the system can be cleaned.

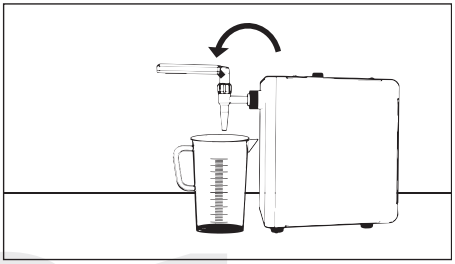
6.9 DRY CLEANING



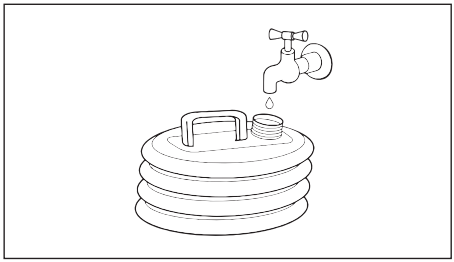
Remove the red cap from the CLEANING CANISTER. Connect the CONNECTOR to the CLEANING CANISTER as shown in „6.8 Preparation of the cleaning liquid“.



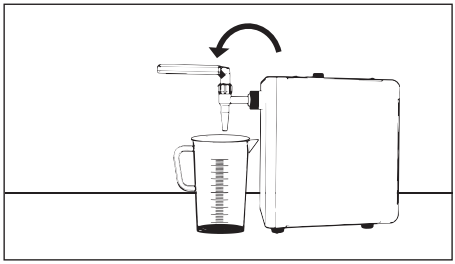
Press the NITRO SWITCH in the NITRO CONTROL PANEL so that it no longer engages and stops glowing. The NITRO function is now deactivated.



Place the glass under the TAP and pull the HANDLE forward by 90°. The device sucks in the liquid and after a short time it flows out of the tap cooled. To stop the dispensing process, flip the HANDLE back up.



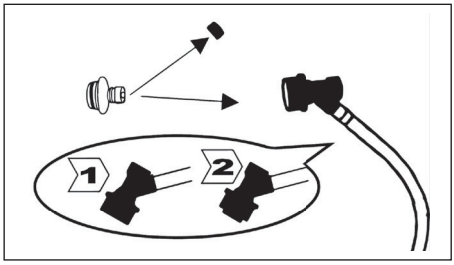
Then fill lukewarm water into the CLEANING CANISTER and reconnect it to the device.



Rinse the system with at least five liters of clean water until the cleaning agent has been completely removed.

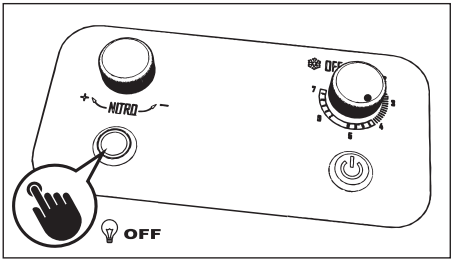
Attention:
Before serving to guests: Perform taste control!

6.10 EMPTY LIQUID FROM DEVICE



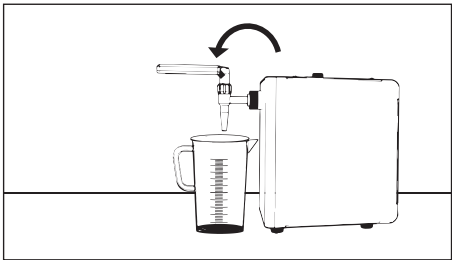
Remove the red cap from the NC/CMB CONNECTOR. Insert the NC connection into the connector and connect the suction hose to the device.

Attention:
Insert the NC/CMB connection flush into the connector, otherwise the valve inside the connector will not open and the system will not aspirate any liquid.



Press the NITRO SWITCH in the NITRO CONTROL PANEL so that it no longer engages and stops glowing. The NITRO function is now deactivated.

Turn off the cooling!



Place the glass under the TAP and pull the HANDLE forward by 90°. Tap until only air escapes from the tap.

Then switch off the machine and release the remaining pressure from the system!

7 MAINTANCE

7.1 CLEANING

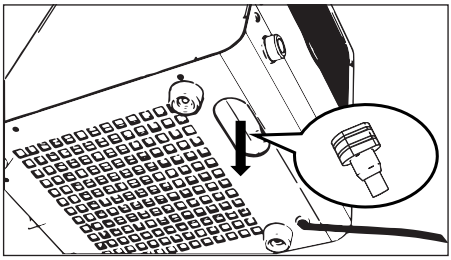
This device has been designed to have a very long life when used and cleaned properly. The compressor inside is oil and maintance-free.

7.2 O-RINGS, PERLATOR PARTS AND TAP UNIT

The machine has been constructes in such a way that it has very long service life if used properly and cleaned accordingly. The compressor inside is oil- and maintance-free.

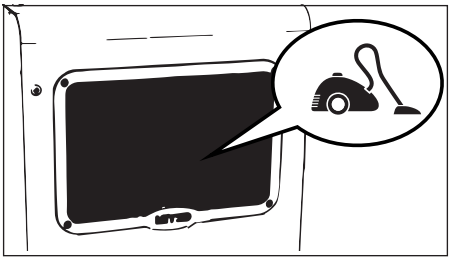
NAME	DESCRIPTION
TO-108012 O-RING SET “RED”, COMPATIBLE WITH PERLATOR B AND C	The O-rings of the perlator unit should be replaced after 12 months.
TO-108013 O-RING SET “BLACK”, COMPATIBLE WITH PERLATOR A	The O-rings of the perlator unit should be replaced after 12 months.
TO-108011 O-RING SET (HOSE) / O-RING SET SILICONE TRANSPARENT	The transparent O-ring/ gasket should be replaced if it becomes too hard over time and thus a sufficient seal can no longer be guaranteed, but after 12 months at the latest.
TO-102011 OUTLET	The outlet of the tap (or its inner rubber seals) should be replaced depending on how it is used, but after 18 months at the latest.
TO-103019 PERLATOR SPARE PART “GREEN”	The inserts of the Perlator unit should be replaced depending on the usage behaviour, but after 12 months at the latest.

7.3 AIR FILTER



An air filter is installed at the bottom left of the rear of the machine; this **should be replaced after 12 months at the latest.**

7.4 CONDENSER FINS



The device must be switched off for this procedure. The radiator grille must have cooled down!

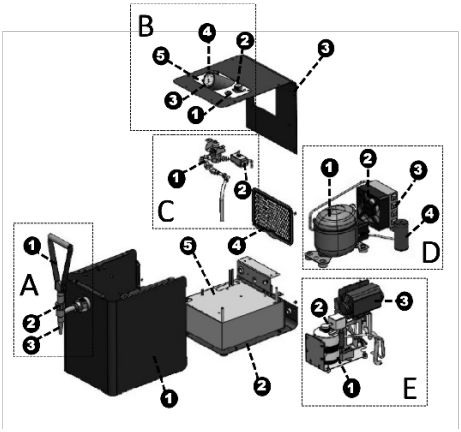
The fins of the condenser should be vacuumed every 3 months, as any dust that may accumulate will significantly reduce the performance of the unit.

Do not use any liquid!

Use an attachment with bristles, otherwise the surface coating could be damaged.

8 TECHNICAL DOCUMENTATION

8.1 EXPLODED DRAWING



1. Case front
2. Case bottom
3. Housing cover
4. Cooling grille
5. Cooling block

A
1. Handle
2. Tap
3. Spout

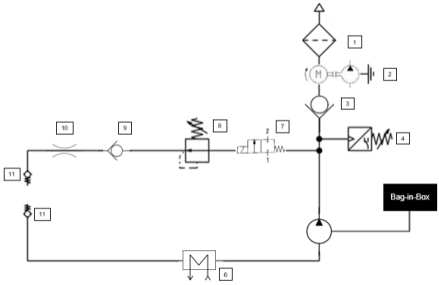
B
1. Device switch on / off
2. Thermostat knob
3. Thermometer (optional)
4. Nitro regulator knob
5. Device switch On /Off

C
1. Nitro regulator
2. Thermostat

D
1. Refrigeration compressor
2. Fan
3. Condenser
4. Startring Capacitator

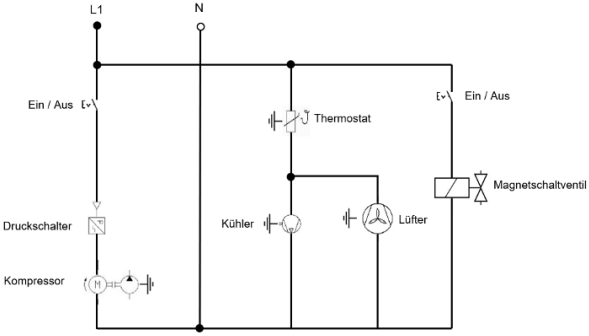
E
1. Air compressor
2. Pressure switch
3. Syrup pump

8.2 FLOW DIAGRAM

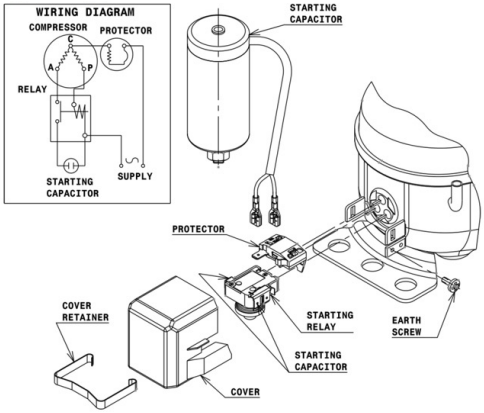


1. Air filter
2. Compressor
3. Check valve
4. Pressure switch
5. Syrup pump
6. Cooling (heat exchanger)
7. Solenoid switch valve (2/2 way)
8. Pressure regulator
9. Check valve
10. Throttle valve
11. Check valve

8.3 CIRCUIT DIAGRAM



8.4 ELECTRICAL ASSEMBLY COMPRESSOR



9 TROUBLESHOOTING

You have problems with your system? No problem, often it is only „little things“ that have to be changed and your system is running again. In the following you will find our Troubleshooting with possible problems, which you can easily solve yourself with the questions and the suggested solutions.

System drips from TAP

O-rings inserted in the front of the PERLATOR-UNIT (A)	**NO!** Insert the O-rings. There are two pieces as replacement in the scope of delivery.
Is the TAP damaged?	**YES!** Replace the TAP.

Device does not suck in liquid.

Device switched on?	**NO!** Switch on the system.
CONNECTOR plugged in flush?	**NO!** Attach the connector flush.
PERLATOR-UNIT blocked, the system clogged?	**YES!** Remove the Perlator unit and clean it throughly.
Setting for cooling turned up too far, the system frozen?	**YES!** Switch off cooling and wait for approx. 10-20 min. if necessary, remove PERLATOR-UNIT and rinse individual rings with warm water.
SUCTION HOSE damaged?	**YES!** Replace SUCTION HOSE.
O-ring in the screw connection of the suction hose present/ OK?	**NO!** Insert or replace the transparent O-ring/ seal. There is one piece as replacement in the scope of delivery.

Device only emits air.

Air bubbles in the intake SUCTION HOSE?	**YES!** SYSTEM SUCKS IN AIR.
CONNECTOR plugged in flush?	**NO!** Attach the connector flush.
Canister/bag-in-box empty?	**YES!** Fill canister/ exchange bag-in-box.
SUCTION HOSE damaged?	**YES!** Replace SUCTION HOSE.
O-ring in the screw connection of the suction hose present/ OK?	**NO!** Insert or replace the transparent O-ring/ seal. There is one piece as replacement in the scope of delivery.
Air bubbles in the intake SUCTION HOSE?	**NO!** Check NITRO setting.
NITRO setting too high?	**YES!** Turn for less NITRO to the left / counter-clockwise

System “spits” during the tapping process

CONNECTOR plugged in flush?	**NO!** Attach the connector flush.
Canister/bag-in-box empty?	**YES!** Fill canister/ exchange bag-in-box..
SUCTION HOSE damaged?	**YES!** Replace SUCTION HOSE.
O-ring in the screw connection of the suction hose present/ OK?	**NO!** Insert or replace the transparent O-ring/ seal. There is one piece as replacement in the scope of delivery.
Air bubbles in the FOLDING CANISTER?	**YES!** Remove air bubbles. Tipp: The valve in the NC coupling can be opened by means of pure pressure and the air can be transported out of the canister by exerting pressure.

System dispenses drink only without foaming

NITRO funtion deactivated?	**Yes!** Press the left button in the CONTROL PANEL so that it clicks into place and lights up. NITRO is activsted.
NITRO setting too high?	**YES!** Turn for less NITRO to the left /counter-clockwise.
Beverage/liquid able to foam?	**NO!** Dry clean the system and use other beverage liquid. Too little protein or sugar, or too much alcohol can prevent proper foaming.

System dispenses drink too warm.

Cooling switched on?	**NO!** Switch on cooling. To do this, turn the right-hand knob to the right.
Does the device have enough space? are all ventilation slots free and the condenser not covered?	**NO!** It is essential that all ventilation slots are kept clear. And switch off the system for 10 minutes. The condenser fins must never be covered, otherwise there is a risk of overheating and fire and/ or the unit could be destroyed!
Outside temperature or the temperature of the beverage to be drawn in the bag-in-box/NITRO canister exceed 22°C?	**YES!** It is too hot. The system must „fight“ against the outside temperatures or cool down the too warm beverage liquid first. Have patience, the filling system just needs a little more time.
Device exposed to direct sunlight?	**YES!** Always remove the system from the sun and place it in a shady place. The system mus „fight“ against the high outside temperatures or cool down the too warm drink first. Have patience, the filling system just needs a little more time.

EG DECLARATION OF CONFORMITY

Schultes Maschinenbau GmbH
Am Beetacker 5
63856 Bessenbach

declares that the following devices:

NITRO 2.0

fulfill the following community harmonization legislation:

- Richtlinie 2006/42 / EG - Maschinenrichtlinie
- Richtlinie 2014/30 / EU - Elektromagnetische Verträglichkeit (EMV)
- Richtlinie 2011/65 / EU - Beschränkung gefährlicher Stoffe (RoHS)
- NSP-Richtlinie neu 2014/35/EU

The authorized person for the compilation of technical documents in terms of machinery directive is: Mr. Bernhard Schultes

The following national technique standards and specifications have been applied:

- DIN EN ISO 12100-1
  Safety of machinery: Basic terminology, methodology

- DIN EN ISO 12100-2
  Safety of machinery: Technical principles

- DIN EN ISO 13849-1
  Safety-related parts of control systems: General principles for design
- DIN EN ISO 14121-1
  Safety of machinery: Principles of risk assessment

- DIN EN 60204-1
  Electrical equipment of machines: General requirements

- DIN EN 62079
  Dispense systems for draught beverages: General requirements

- DIN 6650-5 12/2014
  Dispense systems for draught beverages: Safety, hygienic and application-technical requirements and testing of ready-for-use dispense systems for draught beverages

- DIN 6650-6 12/2014
  Dispense systems for draught beverages: Requirements for cleaning and disinfection

Bessenbach, 30.05.2021

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