THIS MANUAL IS SUPPLIED ONLINE TO SECURE AVAILABILITY OF THE LATEST VERSION.

Alesco®

INDUCTION HEATERS

MANUAL ACE12

WWW.ALESCO.SE

ALESCO INTERNATIONAL AB SERVICE/SUPPORT **ENGLISH VER. 0.4**

Alesco®

INDUCTION HEATERS

FOREWORD

The ACE12 is a mobile induction heater used for heating metal parts on vehicles and industrial metal structures where heat can be applied according to the surrounding circumstances. All other use of the equipment may result in personal injury and/or damage the machine.

The equipment shall ***only*** be used in accordance with the safety requirements valid at the workplace.

If the ACE12 is used incorrectly, Alesco International AB cannot be held responsible for damage to the equipment. Neither does Alesco International AB accept liability for consequential financial losses or losses of revenue.

Information
This manual contains installation, operation, maintenance, and fault-tracing instructions.

Warranty
Alesco grants a 24-month warranty from the machine's delivery date.

TABLE OF CONTENT

FOREWORD
INSTRUCTION MANUAL
UNPACKING
IMPORTANT
ACE12 GENERAL INFORMATION

1. SAFETY **6-9**
2.1 GENERAL INFORMATION 6
2.2 WARNING AND SAFETY SIGNS 6
2.3 GENERAL WARNINGS 8-9

2. MARKING **10-11**
MARKINGS 10
2.1 ELECTRICAL CONNECTION 11
2.2 WATER CONNECTION 11

3. DESCRIPTION **12-17**
DESCRIPTION 12-13
3.1 GETTING STARTED 14
3.2 ALARM INDICATORS 15
3.3 OPERATION 16
3.4 ANNUAL CHECK 17
3.5 ELECTRICAL CONNECTION 17

4. GUARANTEE **18**
4.1 GUARANTEE CLAIM 18
4.2 SUPPORT 18

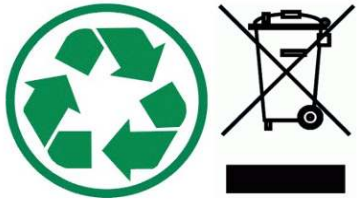
INSTRUCTION MANUAL

It is of the utmost importance that you read and understand this instruction book. If anything requires clarification or you have any questions, then please contact Alesco prior to use of the equipment.

Phone: +46 31 711 47 50.

Conformance

The ACE12 conforms to the applicable CE standards.
See page 10 for CE declaration.



UNPACKING

Check the ACE12 that no damage has occurred during transport.
If any damage is found the ACE12 cannot be used until the parts have been replaced or repaired.

The packaging material can be recycled. Send the packaging for recycling. The induction heater is designed to have a high degree of recyclability. However, it can contain substances which should not be thrown out with the normal garbage. Your Alesco International AB dealer can provide you with information about environmentally sound waste disposal.

IMPORTANT!

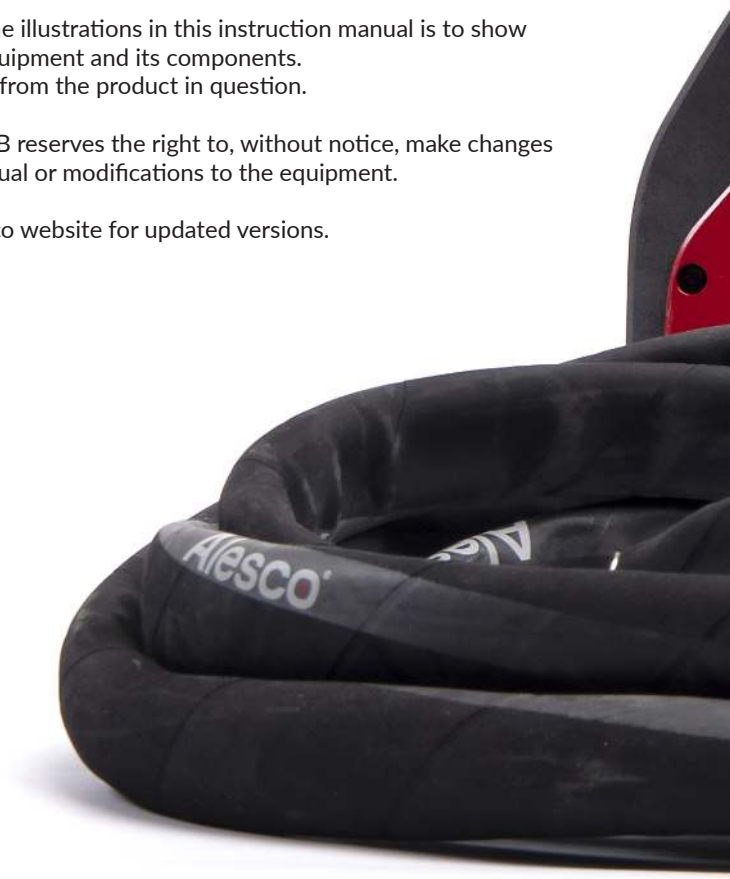
Read this instruction manual carefully so that you fully understand the equipment and how to operate it. Incorrect operation can cause personal injury and damage to the equipment.

The only purpose of the illustrations in this instruction manual is to show how to operate the equipment and its components.
They may be different from the product in question.

Alesco International AB reserves the right to, without notice, make changes to the instruction manual or modifications to the equipment.

Please check the Alesco website for updated versions.

www.alesco.se



ACE12 GENERAL INFORMATION

The ACE12 is a mobile induction heater that can heat all metals by creating a concentrated magnetic field at the heating tip, so called inductor.
Heat is created within a metal work piece of all alloys.

There is no necessity for direct contact between the work piece and the heating tip.

The ACE12 uses water as cooling media. The water is used to cool internal electronics as well as the hose package and heating tip (inductor).

The water source is monitored by the ACE12 and secures safe operation only when the correct flowrate of 4 liters per minute or more is present.

1. SAFETY

1. GENERAL INFORMATION

Always read through the safety instructions and follow them carefully before starting work with the ACE12.

The ACE12 has stringent safety requirements and is manufactured to a high degree of precision. The information contained in this instruction manual describes recommended working methods but must not be considered to override the user's own judgement or local regulations.

By reading and following these safety regulations, the user is ensuring a safe working environment for himself and his colleagues.

2. WARNINGS AND SAFETY SIGNS

The following types of safety symbols are used in Alesco International AB's instruction manuals and on the equipment.

Foam Spray
FOAM
FIRE EXTINGUISHER
USE UPRIGHT PULL OUT PIN
AIM HOSE AT BASE OF FIRE
SQUEEZE HANDLE TO OPERATE
RELEASE HANDLE TO STOP
A
B
JEWEL

3. GENERAL WARNINGS

IMPORTANT!
The equipment and its components may not be modified without the prior written permission of the manufacturer. The user of the equipment is liable for all technical failures caused by incorrect use, incorrect maintenance, damage, incorrect repair or modification by a party other than the manufacturer or specified by the manufacturer.

IMPORTANT
The induction heater is designed to have a high degree of recyclability. However, it can contain substances which should not be thrown out with normal garbage. Contact Alesco International AB for information about environmentally sound handling.

WARNING!
Do not touch any objects that have been in the vicinity of the induction tip without checking that the object has cooled down.

WARNING!
Unless the paint has been removed before the work piece is heated, use an extractor fan to remove fumes.

WARNING!
Wear no metal objects on your hands such as watches, jewellery etc. There is a risk of these also being heated during operation.

WARNING!
Anyone with a pacemaker or other technical medical equipment must never use, or be in close proximity to, an active induction heater.

WARNING! IT'S IMPORTANT!
It is the responsibility of the owner to ensure that the equipment has been installed in accordance with the instructions in this instruction manual. It is the owner's responsibility to ensure that the induction heater has been inspected in accordance with applicable regulations before it is used.

WARNING!
Do not place the induction heater on an uneven or unstable surface. The induction heater could tip over and cause personal injury or serious damage to the equipment.

IMPORTANT!
If the induction heater is used in environments where the temperature is below freezing, anti-freeze must be used. The recommended anti-freeze is 30% propylene glycol.

IMPORTANT!
Use only Alesco International AB approved accessories and spare parts.

IMPORTANT!
Always read through the safety instructions and follow them carefully before using the ACE12.

GENERAL WARNINGS

WARNING!
All major service and maintenance work must be carried out by Alesco International AB's service personnel. Risk of electric shock.

WARNING!
Remove no cover plates or carry out work on the induction heater without disconnecting it from the mains supply. Risk of electric shock.

WARNING!
Disconnect the induction heater from the mains supply before carrying out service, cleaning or maintenance. Risk of electric shock.

WARNING!
Do not touch the inductor when it is activated because it emits a strong magnetic field and heat. Risk of personal injury.

WARNING!
When the induction heater is in use the worksite must be cleared of combustible material to avoid it being ignited.

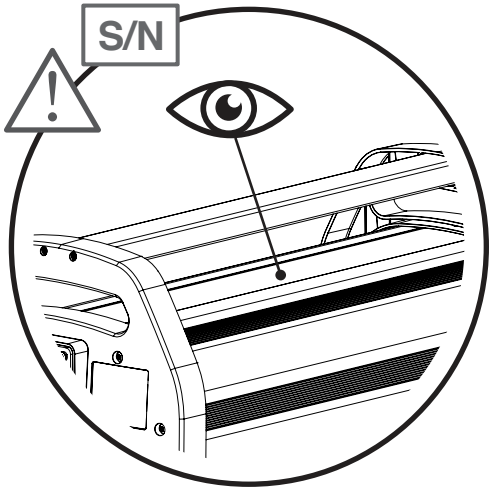
WARNING!
Ensure that there is fire extinguishing equipment at hand.
Risk of personal injury.

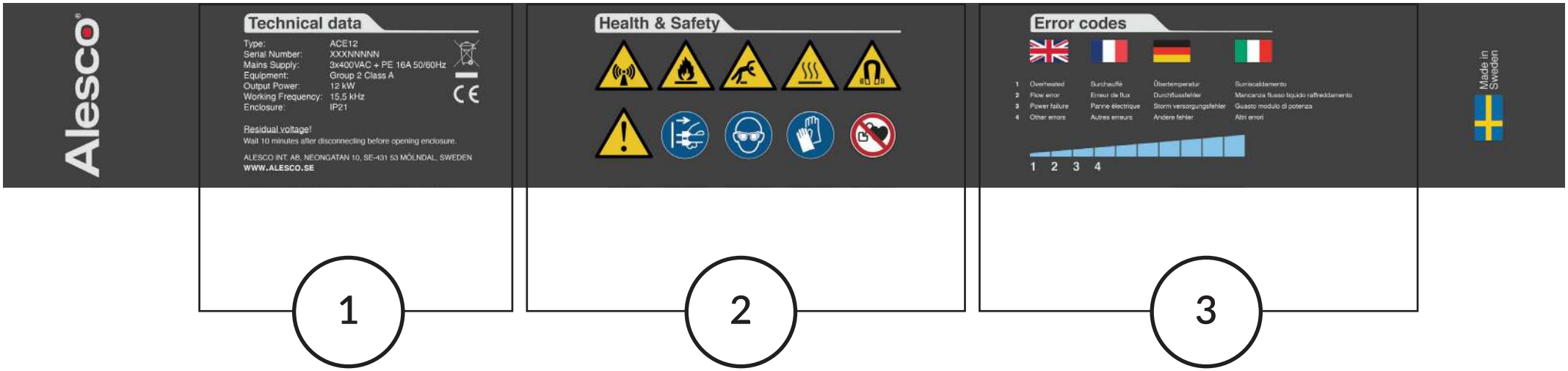
WARNING!
Loose cables and hoses constitute a risk of tripping.
Risk of personal injury.

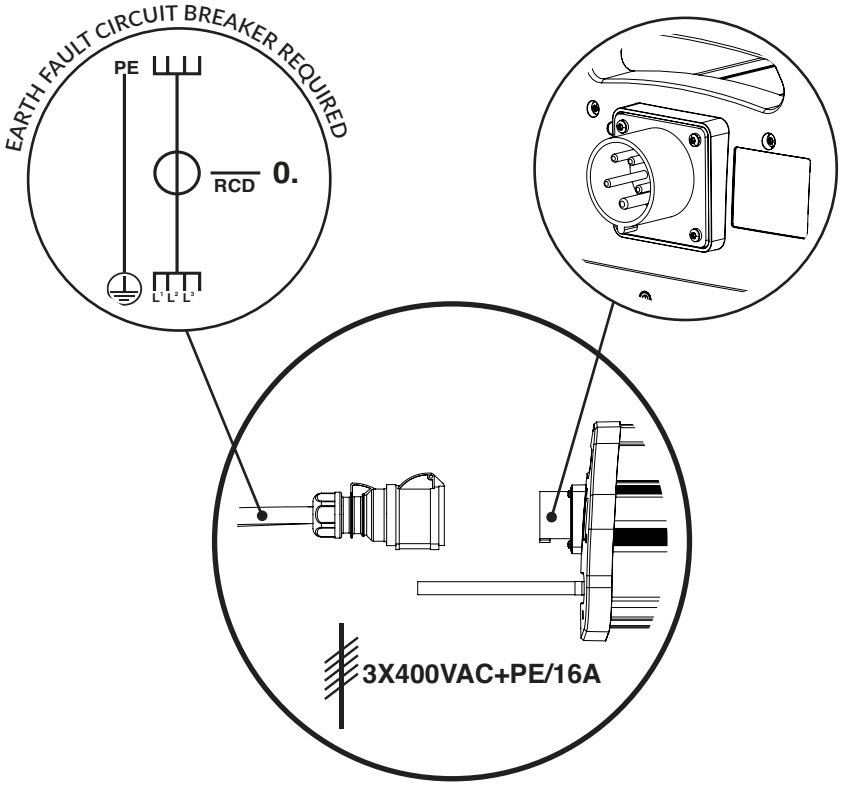
2. MARKING

The marking of the ACE12 is divided into three categories.

1. **Technical data**
2. **Health and safety.**
3. **Common error codes.**







1. ELECTRICAL CONNECTION

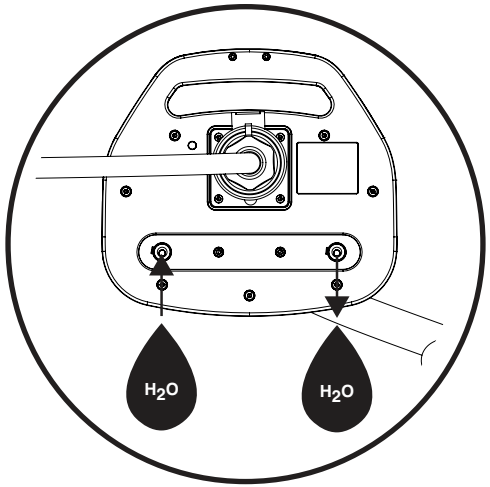
The following describes the electrical connection of the ACE12 as stand alone connected to external water source e.g., tap water.

When connecting the ACE12 to Alesco cooling units then please see the appropriate manual for the chosen cooling unit.

Power outlet: 3x400VAC + PE 16A 50/60Hz. Connected to RCD.

2. WATER CONNECTION

A minimum flow of 4l/min is required.
– Do not exceed a maximum water pressure of 3.5 Bar / 50 Psi.



3. DESCRIPTION

Ease of use interface

Compact design -
12 kW Power Output

Changeable heating tips

EU standard
400VAC+PE 16A 50/60Hz
power outlet

6 meter hose length

Recommended ambient working temperature 0°–35°C

Recommended air humidity < 90%

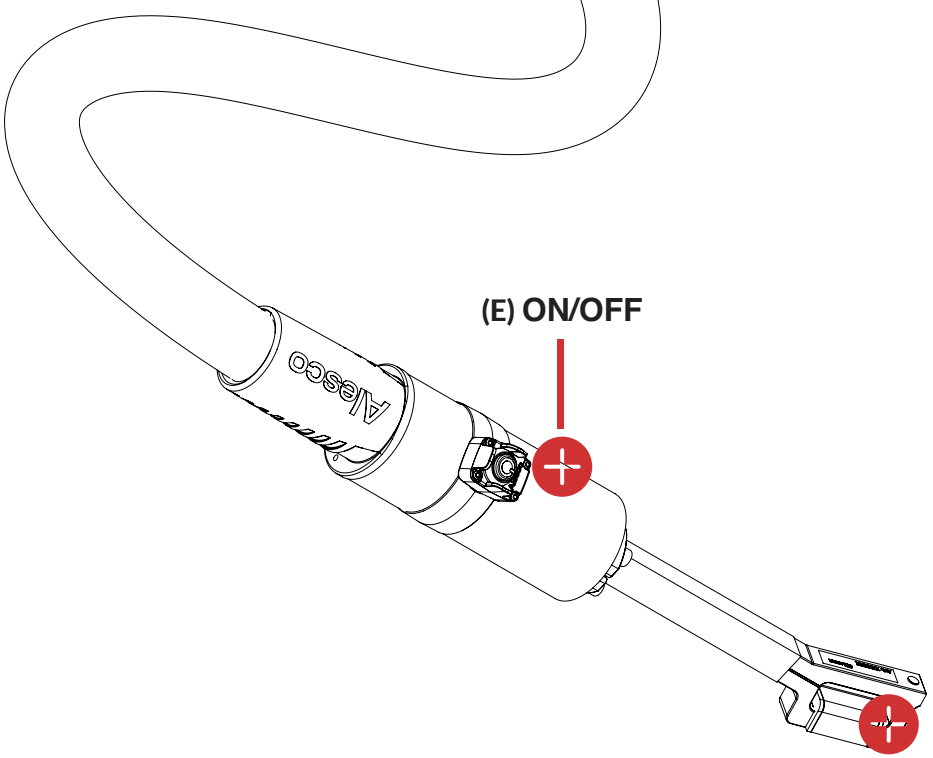
Recommended transport temperature -10–50°C

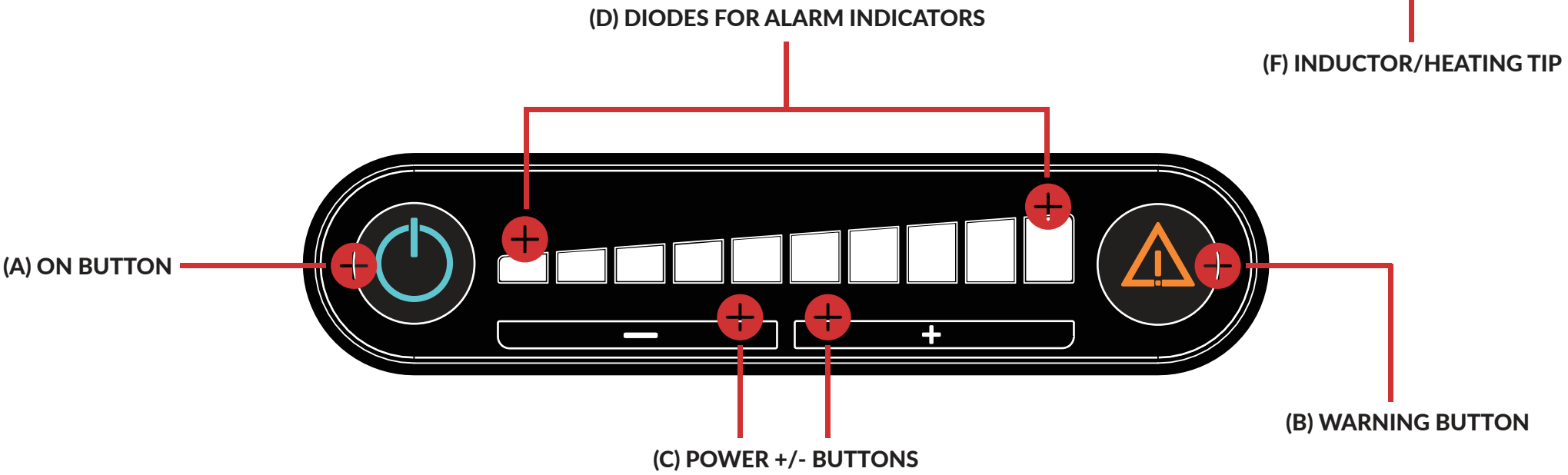
ACE 12

MAIN SUPPLY	3x400VAC + PE 16A 50/60Hz
ENCLOSURE	IP21
POWER CONTROL	10 STEPS
WORKING FREQUENCY	15.5 kHz
OUTPUT POWER	12 kW
WEIGHT	19 KG
DIMENSIONS	(LXWXH) 600X290X260 mm
HOSE LENGHT	STANDARD *(6 meters)*
INTERNAL COOLING	No
COOLING SYSTEM	2 options: Tap water or with NIX3
AVAILABLE HEATING TIPS	90 degrees *(included).* Straight & flat is optional.
WATER CONSUMPTION	Min 4L/m during heating sequence
PRODUCT WARRANTY	2 years

1. GETTING STARTED

1. When connected to a power line the “ON” switch is illuminated. **(A)**
2. Press the “ON” switch and the ACE12 will run a short self-check and then seven (7) diodes from the left will turn green. **(D)**
3. Choose the required power setting by stepping up or down with the +, - buttons. **(C)**
4. The ACE12 is now ready to be activated by the start/stop switch on the transformer handle. **(E)**
5. Place the inductor **(F)** on the surface to be heated and activate the switch.
6. When operating the diodes on the display flash. **(D)**

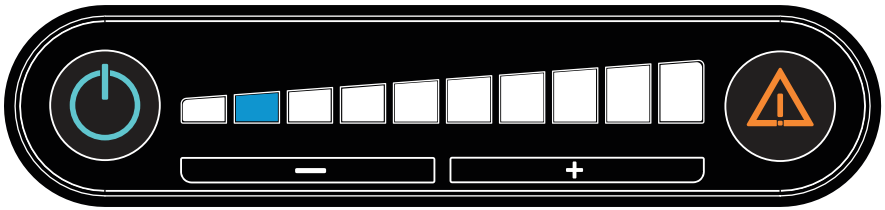




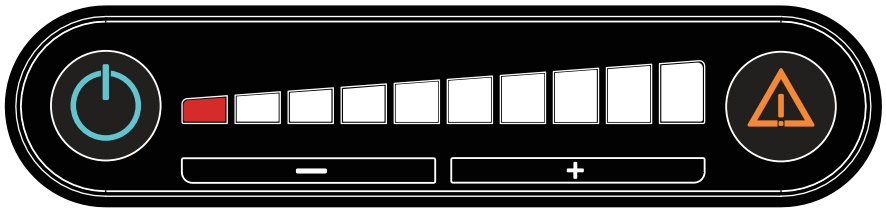
2. ALARM INDICATORS

Typical simple fault codes are displayed directly on the display.

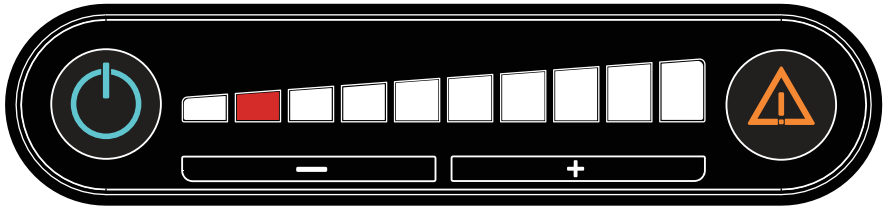
These codes are also shown on the product label. NOTE! All Alarms and Errors also activate a audio signal.



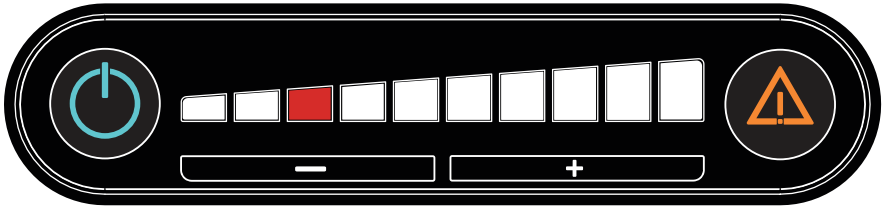
NOTE!
When connecting to a water source for the first time the second diode will turn blue for 90 seconds and then red if no water flow is detected – **FLOW FAULT**.



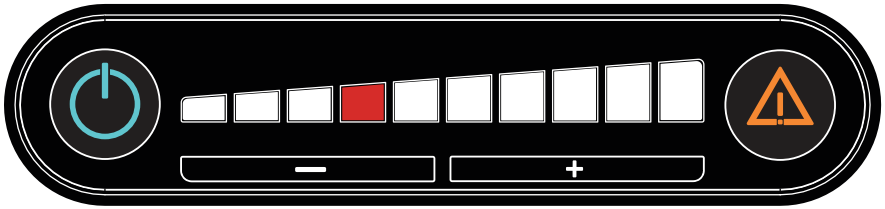
OVERHEATED



NO WATER FLOWING



POWER FAILURE



ALL OTHER ERRORS
Warning symbol lights up. Press warning symbol (⚠) to see error code.

NOTE!
Please contact Alesco or your distributor for service if any of these error codes appear.

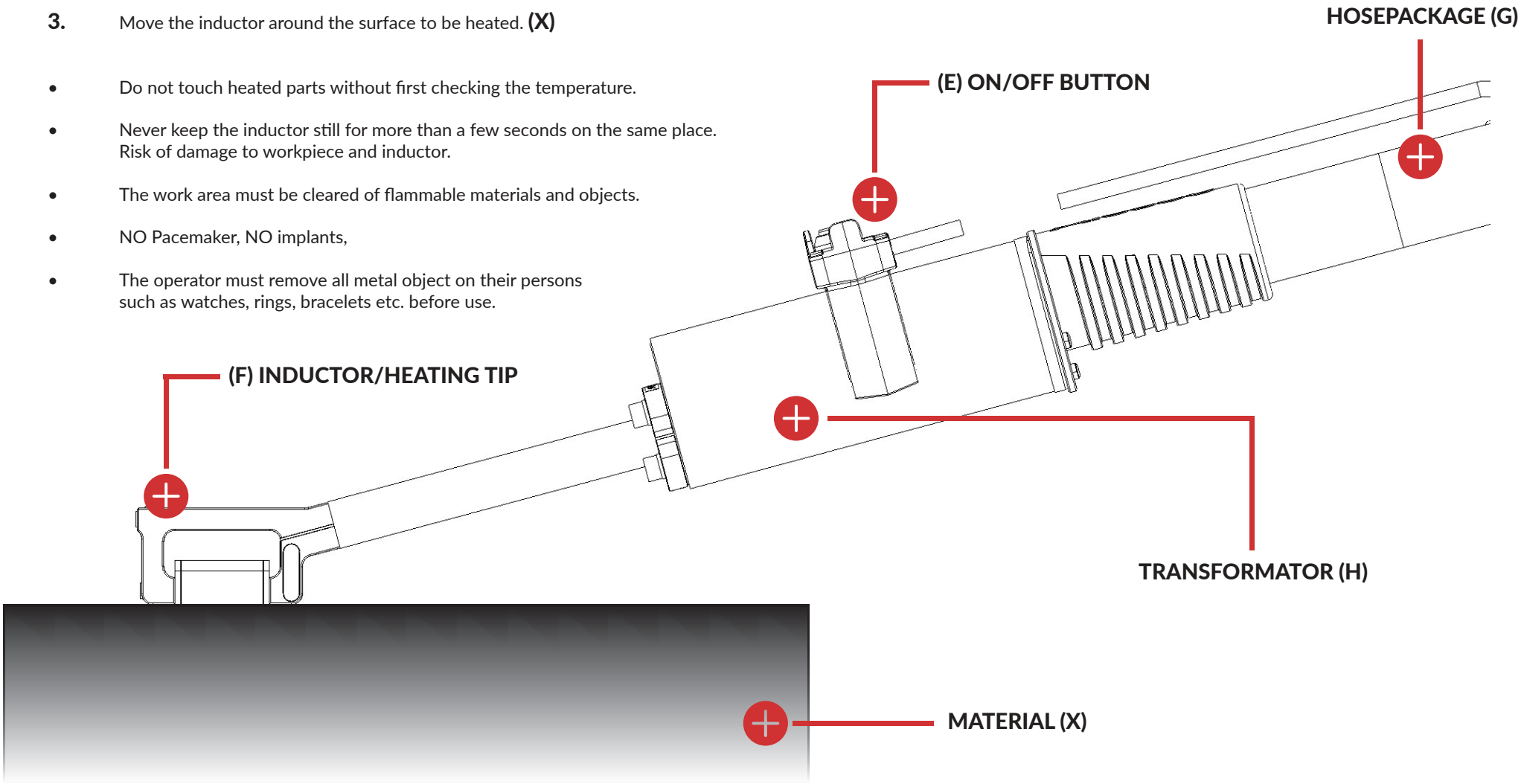
3. OPERATION

1. Place the inductor tip **(F)** flat on the workpiece. **(X)**

2. Press and hold the in the ON/OFF button. **(E)**

3. Move the inductor around the surface to be heated. **(X)**

- Do not touch heated parts without first checking the temperature.
- Never keep the inductor still for more than a few seconds on the same place. Risk of damage to workpiece and inductor.
- The work area must be cleared of flammable materials and objects.
- NO Pacemaker, NO implants,
- The operator must remove all metal object on their persons such as watches, rings, bracelets etc. before use.



4. ANNUAL CHECK

For safety and endurance please handle the equipment carefully and keeping it clean. Always run a visual check prior to starting the ACE12.

At least once every 12 months the ACE12 should be checked. If necessary involve someone with appropriate knowledge.

NOTE!
To be performed by trained engineer and calibrated equipment.
Earth Continuity Test (PE): Must be < 0.5 Ohms.
Insulation Resistance Test.

IF DAMAGE OR DEVIATION TO THE EQUIPMENT IS DETECTED THEN DO NOT USE THE ACE12 UNTIL CORRECTLY SERVICED.

5. ELECTRICAL CONNECTION

POWER CABLE:
Check the power the power cable for damages. Check the plugs at both ends of the cable that the cable is secured at both ends.

ACE12 INLET:
Check the inlet for any damage.

SCREWS:
Check that all screws used in the housing are present.

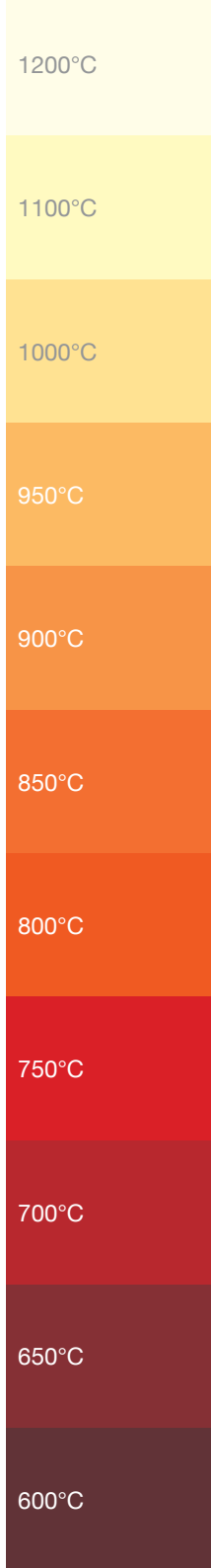
FRONT AND REAR:
Check the front and rear covers for cracks or any other visual damage.

FRONT CONTROL PANEL:
Check that there is no visual damage to the control panel.

HOSE PACKAGE:
Carefully check the hose package, the handle (?) and the control button for visual damage.

HEATING TIP:
Unscrew the heating tip and carefully clean the contact surfaces of the heating tip and the handle with sandpaper higher grade than 280. Mount the heating tip and tighten the screws with hand power.

NOTE!
This temperature scale visualises the approximate temperature of steel seen in daylight.



4. GUARANTEE

Alesco International AB provides a 24 month guarantee on Alesco´s induction heaters and its parts. This guarantee applies to damage related to faults in materials or manufacture.
The guarantee does not cover damage arising from inappropriate or careless use, overloading, negligent maintenance or natural wear and tear.

The guarantee presupposes that:

(X) The Alesco ACE12 has been correctly installed and inspected in accordance with local regulations.

(X) The Alesco ACE12 has not been modified in any way without approval from Alesco International AB

(X) Only original parts from Alesco International AB have been used for repairs.

(X) The induction heater has been utilised and maintained in accor dance with the instructions in this instruction manual.

1. GUARANTEE CLAIM

In the event of a guarantee claim against Alesco International AB, the customer must be able to prove that the fault has arisen within the guarantee period and that the Alesco ACE12 has been used in accordance with the specified instructions and technical data.

Guarantee claims must also contain details about the product type and serial number.

2. SUPPORT

Alesco International AB offers a professional support

For latest revised user manual see: **www.alesco.se**
By e-mail: **support@alesco.se**
by telephone: **+46317114750**
By mail: **Alesco International AB, Neongatan 10, SE-43153 Mölndal**

WURTH
HALLÉNS
ERI AB GÖTEBORG
Alesco
ACE 12
NIX 3
Alesco

Alesco
ACE 12
Alesco

Alesco®

INDUCTION HEATERS

alescoinduction alesco induction heaters alescoinduction

ORDER@ALESCO.SE | PHONE: +46 31 711 47 50 | **WWW.ALESCO.SE** | NEONGATAN 10, SE-431 53, SWEDEN

VOL.3. 06 FEB 2023