ES 300i
Welding power source
MMA 300 A

Instruction manual

0463 415 001 GB 20160912

Valid for: serial no. 621-xxx-xxxx

EU DECLARATION OF CONFORMITY

According to
The Low Voltage Directive 2014/35/EU, entering into force 20 April 2016
The EMC Directive 2014/30/EU, entering into force 20 April 2016
The RoHS Directive 2011/65/EU, entering into force 2 January 2013

Type of equipment
Welding Power Source

Type designation
ES 300i, from serial number 621 xxx xxx (2016 w/21)

Brand name or trade mark
ESAB

Manufacturer or his authorised representative established within the EEA
Name, address, and telephone No:
ESAB AB
Lindholmsallén 9, Box 8004, SE-402 77 Göteborg, Sweden
Phone: +46 31 50 90 00, Fax: +46 584 411 924

The following harmonised standard in force within the EEA has been used in the design:
EN 60974-1:2012, Arc Welding Equipment – Part 1: Welding Power Sources
EN 60974-10:2014, Arc Welding Equipment – Part 10: Electromagnetic Compatibility (EMC) requirements

Additional Information:
Restrictive use, Class A equipment, intended for use in location other than residential

By signing this document, the undersigned declares as manufacturer, or the manufacturer's authorised representative established within the EEA, that the equipment in question complies with the safety requirements stated above.

Date	**Signature**	**Position**
Gothenburg 2016-07-20	Stephen Argo	Global Director Equipment

CE 2016

1 SAFETY

1.1 Meaning of symbols

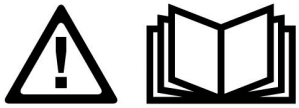
As used throughout this manual: Means Attention! Be Alert!

DANGER!
Means immediate hazards which, if not avoided, will result in immediate, serious personal injury or loss of life.

WARNING!
Means potential hazards which could result in personal injury or loss of life.

CAUTION!
Means hazards which could result in minor personal injury.

WARNING!
Before use, read and understand the instruction manual and follow all labels, employer´s safety practices and Material Safety Data Sheets (MSDSs).



1.2 Safety precautions

Users of ESAB equipment have the ultimate responsibility for ensuring that anyone who works on or near the equipment observes all the relevant safety precautions. Safety precautions must meet the requirements that apply to this type of equipment. The following recommendations should be observed in addition to the standard regulations that apply to the workplace.

All work must be carried out by trained personnel well-acquainted with the operation of the equipment. Incorrect operation of the equipment may lead to hazardous situations which can result in injury to the operator and damage to the equipment.

1. Anyone who uses the equipment must be familiar with:
   - its operation
   - location of emergency stops
   - its function
   - relevant safety precautions
   - welding and cutting or other applicable operation of the equipment
2. The operator must ensure that:
   - no unauthorised person is stationed within the working area of the equipment when it is started up
   - no-one is unprotected when the arc is struck or work is started with the equipment
3. The workplace must:
   - be suitable for the purpose
   - be free from drafts

4. Personal safety equipment:
   - Always wear recommended personal safety equipment, such as safety glasses, flame-proof clothing, safety gloves
   - Do not wear loose-fitting items, such as scarves, bracelets, rings, etc., which could become trapped or cause burns
5. General precautions:
   - Make sure the return cable is connected securely
   - Work on high voltage equipment **may only be carried out by a qualified electrician**
   - Appropriate fire extinguishing equipment must be clearly marked and close at hand
   - Lubrication and maintenance must **not** be carried out on the equipment during operation

WARNING!

Arc welding and cutting can be injurious to yourself and others. Take precautions when welding and cutting.

ELECTRIC SHOCK - Can kill

- Install and ground the unit in accordance with instruction manual.
- Do not touch live electrical parts or electrodes with bare skin, wet gloves or wet clothing.
- Insulate yourself from work and ground.
- Ensure your working position is safe

ELECTRIC AND MAGNETIC FIELDS - Can be dangerous to health

- Welders having pacemakers should consult their physician before welding. EMF may interfere with some pacemakers.
- Exposure to EMF may have other health effects which are unknown.
- Welders should use the following procedures to minimize exposure to EMF:
  - Route the electrode and work cables together on the same side of your body. Secure them with tape when possible. Do not place your body between the torch and work cables. Never coil the torch or work cable around your body. Keep welding power source and cables as far away from your body as possible.
  - Connect the work cable to the workpiece as close as possible to the area being welded.

FUMES AND GASES - Can be dangerous to health

- Keep your head out of the fumes.
- Use ventilation, extraction at the arc, or both, to take fumes and gases away from your breathing zone and the general area.

ARC RAYS - Can injure eyes and burn skin

- Protect your eyes and body. Use the correct welding screen and filter lens and wear protective clothing.
- Protect bystanders with suitable screens or curtains.

NOISE - Excessive noise can damage hearing

Protect your ears. Use earmuffs or other hearing protection.

MOVING PARTS - Can cause injuries

- Keep all doors, panels and covers closed and securely in place. Have only qualified people remove covers for maintenance and troubleshooting as necessary. Reinstall panels or covers and close doors when service is finished and before starting engine.
- Stop engine before installing or connecting unit.
- Keep hands, hair, loose clothing and tools away from moving parts.

FIRE HAZARD

- Sparks (spatter) can cause fire. Make sure that there are no inflammable materials nearby.
- Do not use on closed containers.

MALFUNCTION - Call for expert assistance in the event of malfunction.

PROTECT YOURSELF AND OTHERS!

CAUTION!

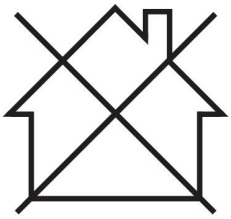
This product is solely intended for arc welding.

WARNING!

Do not use the power source for thawing frozen pipes.

CAUTION!

Class A equipment is not intended for use in residential locations where the electrical power is provided by the public low-voltage supply system. There may be potential difficulties in ensuring electromagnetic compatibility of class A equipment in those locations, due to conducted as well as radiated disturbances.



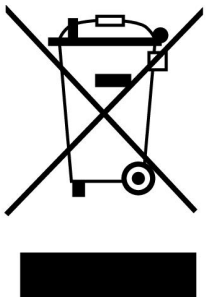
NOTE!

Dispose of electronic equipment at the recycling facility!

In observance of European Directive 2012/19/EC on Waste Electrical and Electronic Equipment and its implementation in accordance with national law, electrical and/or electronic equipment that has reached the end of its life must be disposed of at a recycling facility.

As the person responsible for the equipment, it is your responsibility to obtain information on approved collection stations.

For further information contact the nearest ESAB dealer.



ESAB can provide you with all necessary welding protection and accessories.

2 INTRODUCTION

2.1 Overview

The **ES 300i** is a welding power source intended for welding with coated electrodes (MMA) and TIG welding.

ESAB's accessories for the product can be found in the "ACCESSORIES" chapter of this manual.

2.2 Equipment

The power source is supplied with:

- 3 m mains cable with plug
- instruction manual

3 TECHNICAL DATA

ES 300i (0445 100 880)	
Mains voltage	230-480 V±10%, 3~ 50/60 Hz
Mains supply $S_{sc\ min}$ 2)	4.4 MVA
Primary current	
I_{max} MMA	30.0 A
I_{max} TIG	21.0 A
No-load power demand when in the energy-saving mode	91 W
Setting range	
MMA	5 A / 20 V - 300 A / 32 V
TIG	5 A / 10 V - 300 A / 22 V
Permissible load at MMA	
40% duty cycle	300 A / 32.0 V
60% duty cycle	250 A / 30.0 V
100% duty cycle	200 A / 28.0 V
Permissible load at TIG	
40% duty cycle	300 A / 22.0 V
60% duty cycle	250 A / 20.0 V
100% duty cycle	200 A / 18.0 V
Power factor at maximum current	
TIG	0.96
MMA	0.96
Efficiency at maximum current	
MMA	89 %
TIG	85 %
Open-circuit voltage U_0 max	
VRD 35 V deactivated	48 V
VRD 35 V activated	32 V
Operating temperature	-10 to +40° C (+14 to +104° F)
Transportation temperature	-20 to +55° C (-4 to +131° F)
Continual sound pressure at no-load	< 70 db (A)
Dimensions l × w × h	460x200x320 mm (18.1x7.9x12.6 in.)
Weight	15 kg (33 lbs)
Insulation class transformer	F
Enclosure class	IP23
Application class	S

Mains supply, $S_{sc\ min}$

Minimum short circuit power on the network in accordance with IEC 61000-3-12.

Duty cycle

The duty cycle refers to the time as a percentage of a ten-minute period that you can weld or cut at a certain load without overloading. The duty cycle is valid for 40°C / 104°F, or below.

Enclosure class

The **IP** code indicates the enclosure class, i.e. the degree of protection against penetration by solid objects or water.

Equipment marked IP23 is intended for indoor and outdoor use, however should not be operated in precipitation unless sheltered.

Application class

The symbol S indicates that the power source is designed for use in areas with increased electrical hazard.

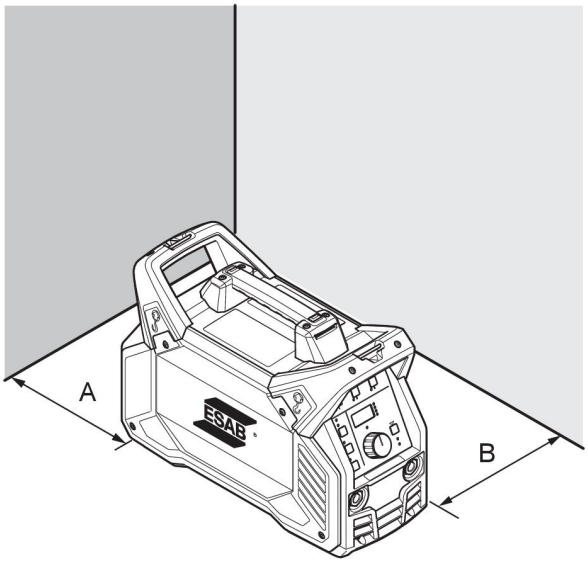
4 INSTALLATION

The installation must be carried out by a professional.

CAUTION!
This product is intended for industrial use. In a domestic environment this product may cause radio interference. It is the user's responsibility to take adequate precautions.

4.1 Location

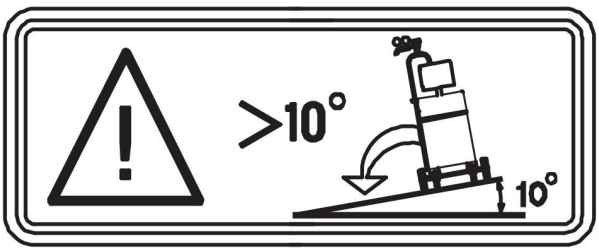
Position the power source so that its cooling air inlets and outlets are not obstructed.



A. Minimum 200 mm (8”)

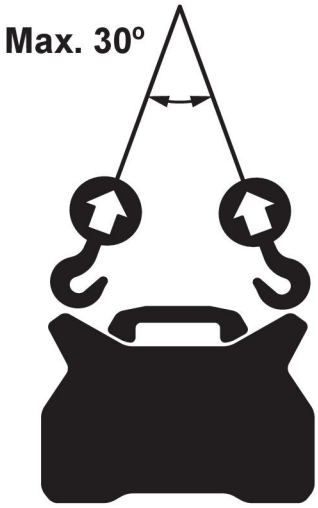
B. Minimum 200 mm (8”)

WARNING!
Secure the equipment - particularly if the ground is uneven or sloping.



4.2 Lifting instructions

Mechanical lifting must be done in both outer handles.



4.3 Mains supply

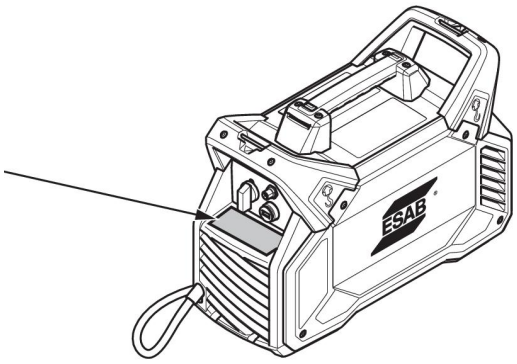
NOTE!

Mains supply requirements

This equipment complies with IEC 61000-3-12 provided that the short-circuit power is greater than or equal to S_{scmin} at the interface point between the user's supply and the public system. It is the responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment is connected only to a supply with a short-circuit power greater than or equal to S_{scmin}. Refer to the technical data in the TECHNICAL DATA chapter.

The power source will automatically adjust to primary input power; make sure it is protected by the correct fuse rating. A protective earth connection must be made, in accordance with regulations.

Rating plate with supply connection data



Recommended fuse sizes and minimum cable area ES 300i						
Mains voltage	3~ 50/60 Hz					
	230 V	380 V	400 V	415 V	440 V	480 V
Mains cable area	4×4 mm²	4×2.5 mm²	4×2.5 mm²	4×2.5 mm²	4×2.5 mm²	4×2.5 mm²

Recommended fuse sizes and minimum cable area ES 300i						
Maximal current rating I_{max} MMA	30 A	18 A	16 A	16 A	15 A	14 A
I_{1eff} MMA	18 A	11 A	10 A	10 A	9 A	9 A
Fuse anti-surge type C MCB	20 A 20 A	16 A 16 A	10 A 16 A	10 A 16 A	10 A 10 A	10 A 10 A
Maximum recommended extension cord length	100 m/ 33 ft.	100 m/ 33 ft.	100 m/ 33 ft.	100 m/ 33 ft.	100 m/ 33 ft.	100 m/ 33 ft.
Maximum recommended extension cord size	4×4 mm²	4×4 mm²	4×4 mm²	4×4 mm²	4×4 mm²	4×4 mm²

NOTE!
Different variants of ES 300i are certified for different mains voltage. Always refer to the rating plate for the specification of the power source in use.

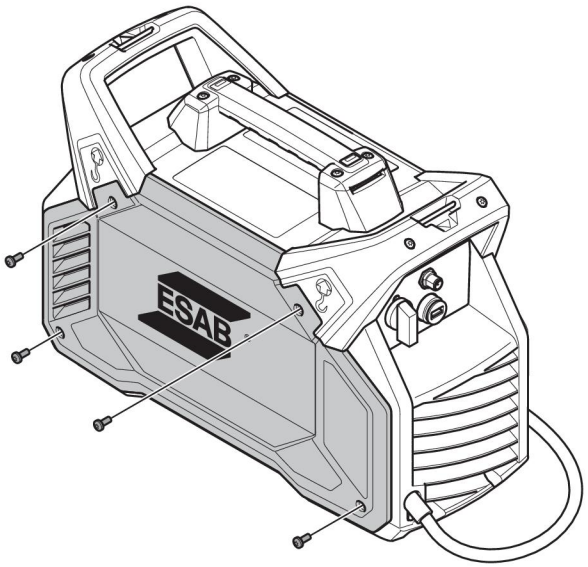
NOTE!
The mains cable areas and fuse sizes as shown above are in accordance with Swedish regulations. Use the power source in accordance with the relevant national regulations.

Supply from power generators

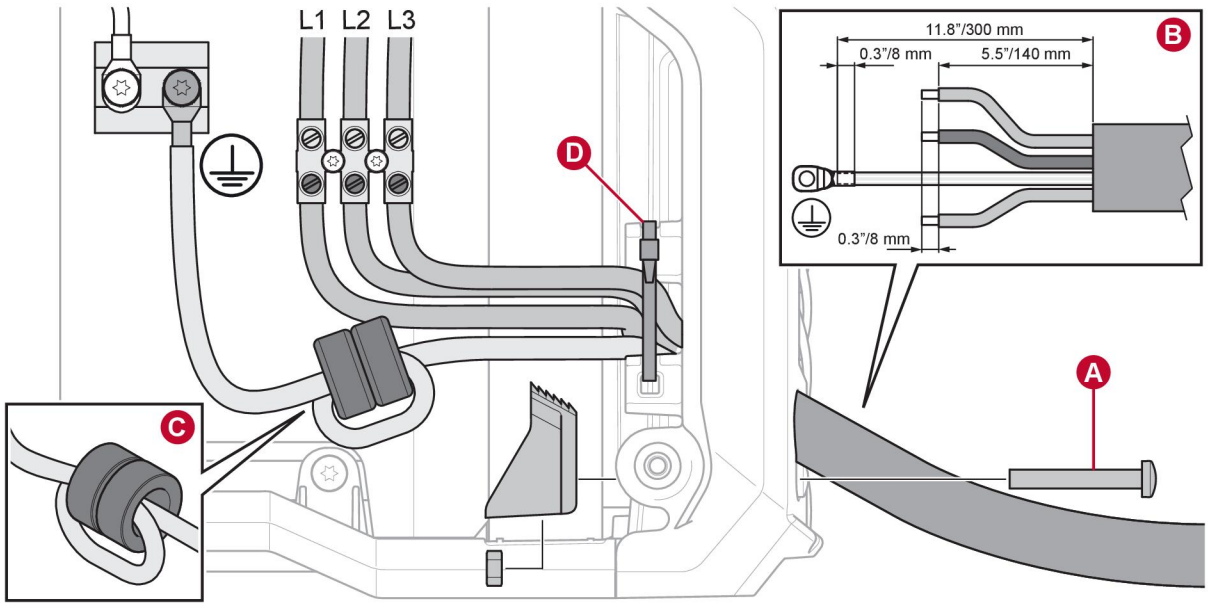
The power source can be supplied from different types of generators. However, some generators may not provide sufficient power for the welding power source to operate correctly. Generators with Automatic Voltage Regulation (AVR) or with equivalent or better type of regulation, with rated power 20 kW, are recommended.

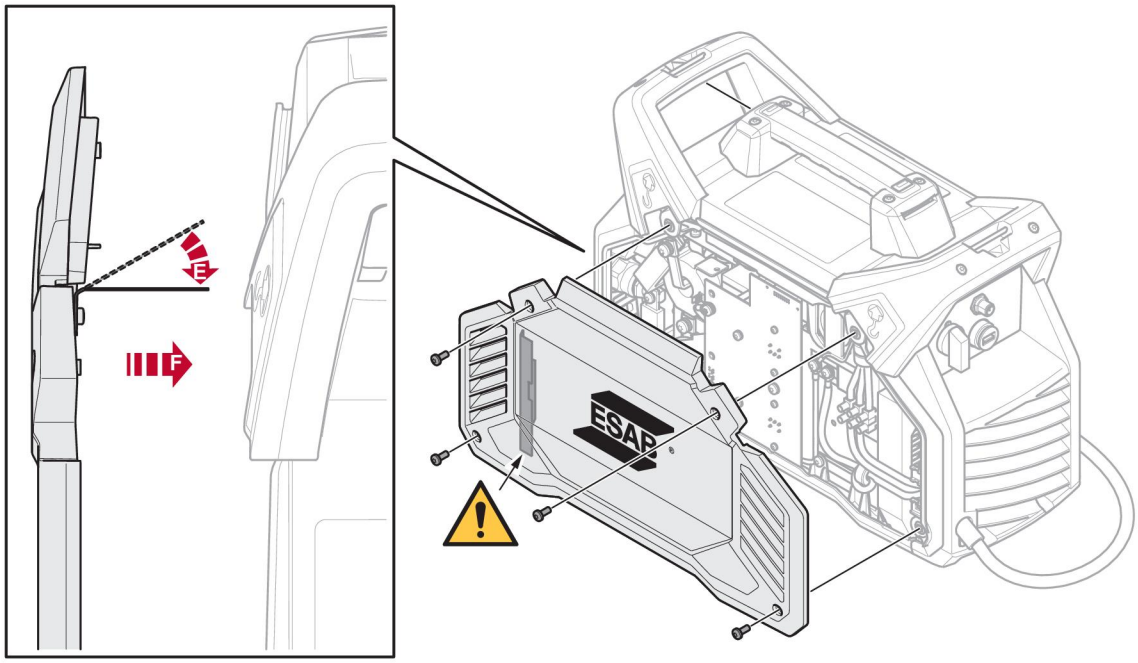
Installation of mains cable

NOTE!
The power source is delivered with mains cable approved for 380-480 V and plug for 380-415 V. If other mains voltage is required, the mains cable and plug may be changed according to relevant national regulations.



1. Remove the side panel.
2. If tightened, release the stopping block **(A)**.
3. If a cable is connected, disconnect all wires, cut the cable tie **(D)**, and remove the cable.
4. Optional: The fan with foam can at this point be removed to simplify the installation.
5. Strip the new wire according to specification **(B)**.
6. Insert the cable with about 1 cm (0.4 in.) of isolation inside the stopping block. Tighten the stopping block by using 1.5 - 2 Nm (13.3 - 17.7 in lb.) **(A)**.
7. Use a cable tie to fasten the cables **(D)**.
8. Optional: If the fan has been removed it shall now be re-installed.
9. Install the ferrites and connect the earth wire **(C)**.
10. Connect all wires.
11. Ensure that the IP is shield correctly mounted on the inside of the side panel **(E)**.
12. Reassemble the side panel **(F)**.
13. Tighten the screws on the side panel with 3 Nm ± 0.3 Nm (26.6 in lb. ± 2.6).





5 OPERATION

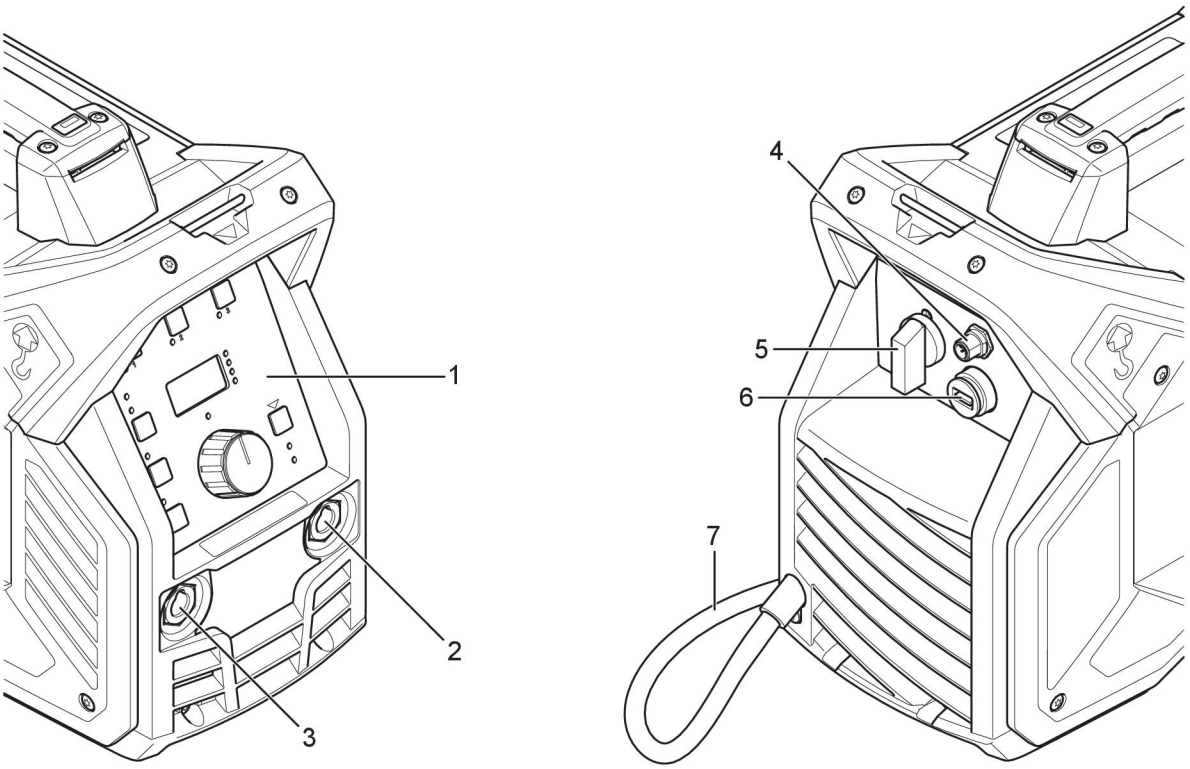
5.1 Overview

General safety regulations for handling the equipment can be found in the chapter "Safety". Read it through before you start the equipment.

NOTE!
When moving the equipment use intended handle. Never pull in the cables.

WARNING!
Electric shock! Do not touch the workpiece or the welding head during operation!

5.2 Connections and control devices



1. Setting panel
2. Positive welding terminal
3. Negative welding terminal
4. Connection for remote control unit
5. Mains power supply switch, O/I
6. USB connection
7. Mains cable

NOTE!
Always use the cover when the USB connection is not in use.

5.3 Connection of welding and return cables

The power source has two outputs, a positive welding terminal (+) and a negative welding terminal (-), for connecting welding and return cables. The output to which the welding cable is connected depends on the welding method or type of electrode used.

Connect the return cable to the other output on the power source. Secure the return cable's contact clamp to the work piece and ensure that there is good contact between the work piece and the output for the return cable on the power source.

- For TIG welding, the negative welding terminal (-) is used for the welding torch and the positive welding terminal (+) is used for the return cable.
- For MMA welding, the welding cable can be connected to the positive welding terminal (+) or negative welding terminal (-) depending on the type of electrode used. The connecting polarity is stated on the electrode packaging.

5.4 Turning the mains power on/off

Turn on the mains power by turning switch to the ”I” position.

Turn the unit off by turning the switch to the ”O” position.

Whether the mains power supply is interrupted or the power source is switched off in the normal manner, weld programs will be stored so that it is available next time the unit is started.

CAUTION!
Do not turn off the power source during welding (with load).

5.5 Fan control

The power source has an automatic thermal control. The fan continues to run during some minutes after welding has stopped and the power source switches to energy-saving mode. The fan starts again when welding restarts.

During energy-saving mode the fan will start every 15 minutes and run for 3 minutes.

5.6 Thermal protection

The power source includes thermal protection against overheating. When overheating occurs the welding is stopped and overheating indicator on the panel will lit and error message shows in display. The protection is automatically reset when the temperature has been sufficiently reduced.

5.7 Functions and symbols

MMA welding

MMA welding may also be referred to as welding with coated electrodes. Striking the arc melts the electrode, and its coating forms protective slag.

For MMA welding the power source shall be supplemented with:

- welding cable with electrode holder
- return cable with clamp

Arc force

Arc Force The arc force function determines how the current changes in response to variations in arc length during welding. Use a low value of arc force to get a calm arc with little spatter and use a high value to get a hot and digging arc.

Arc force only applies to MMA welding.

Hot start

Hot Start The hot start function temporarily increases the current in the beginning of the weld. Use this function to reduce risk of insufficient fusion and electrode sticking and scratching.

Hot start only applies to MMA welding.

Cel 6010

Cel 6010

Optimised arc characteristics for cellulosic electrodes as 6010 and similar.

TIG welding

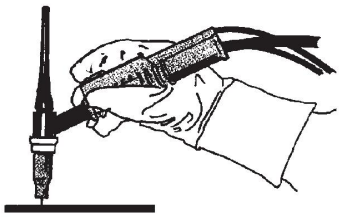
TIG welding melts the metal of the workpiece, using an arc struck from a tungsten electrode that does not melt. The weld pool and electrode are protected by shielding gas.

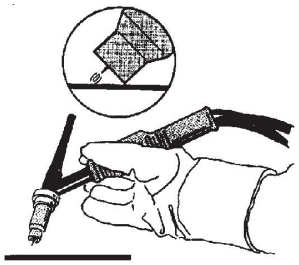
For TIG welding, the welding power source shall be supplemented with:

- a TIG torch with gas valve
- an argon gas cylinder
- an argon gas regulator
- tungsten electrode

This power source performs **Live TIG start**.

The tungsten electrode is placed against the workpiece. When lifted away from workpiece the arc is struck at a limited current level.

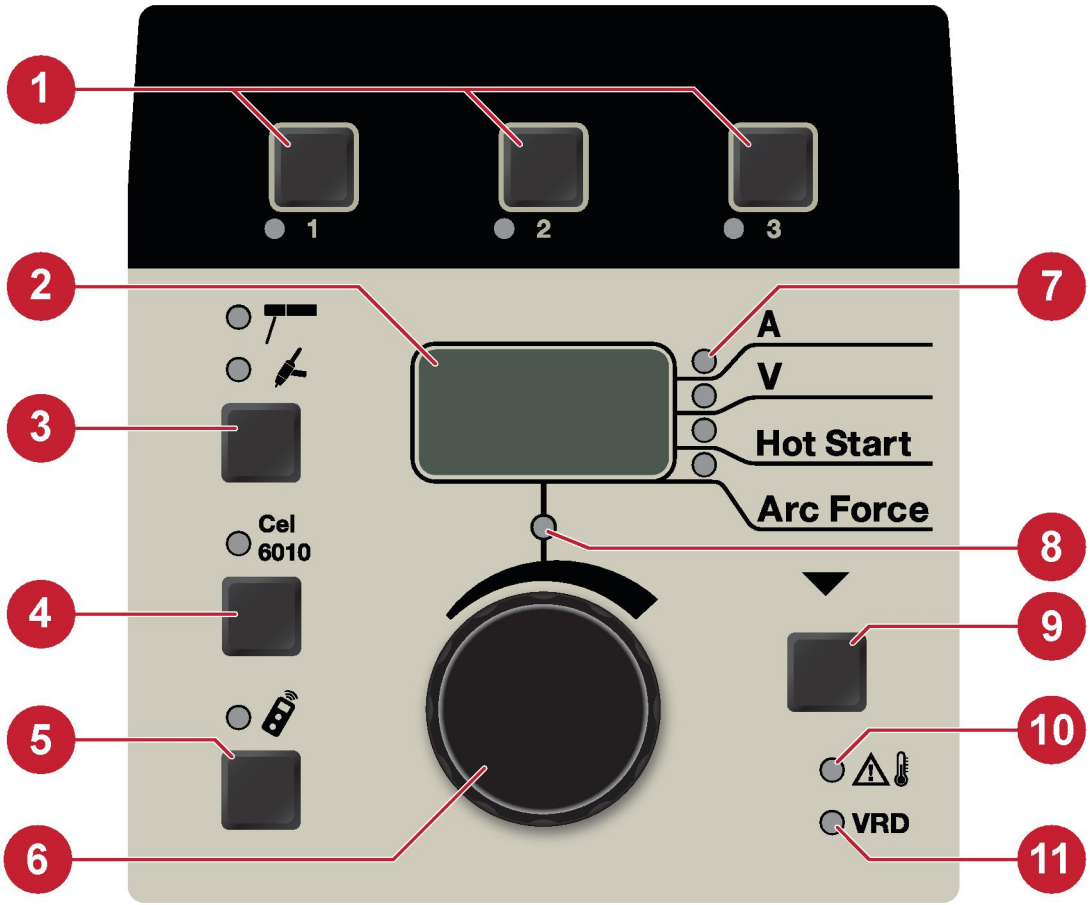




Voltage Reduction Device (VRD)

VRD The VRD function ensures that the open-circuit voltage does not exceed 35 V when welding is not being carried out. This is indicated by a lit VRD indicator on the panel. Contact an authorised ESAB service technician to activate this function.

5.8 Setting panel



1. Buttons for weld program, see section WELD PROGRAM.
2. Display, shows set or measured value.
3. Choice of welding method MMA or TIG.
4. Choice of electrode type "cellulose" for MMA welding.
5. Activate/deactivate of remote control unit.
6. Knob for setting data.
7. Display parameter indicator.
8. Set indicator.
9. Select parameter to show in display, indicated by (7).
10. Overheating indication.
11. VRD function (reduced open-circuit voltage) indicator.

5.8.1 Navigation

Parameter selection

By pressing the button (9) different values can be shown and changed. Use the knob (6) to change the values. The sequence is:

1. Set current values.
2. Measured current values.
3. Measured voltage values.
4. Hot start, setting range: 0-100%, default: 0%. (only MMA)
5. Arc force, 0-100%. (only MMA)

Set parameter

The set indicator (8) will lit when a value can be changed. It cannot be changed from the panel when a remote is activated. Trying to change a value while in measured value mode will result in automatically move to set current value mode.

5.8.2 Weld program

Three different weld programs can be stored in the setting panel memory (1). Hold selection button 1, 2 or 3 pressed for 3 seconds to store weld program in the memory, the memory indicator will lit then finished.

To switch between the different weld programs press button 1, 2 or 3.

5.9 Remote control

Connect the remote control on the rear side of the power source and activate the remote by pushing the remote control button (5) on the panel (shown by remote control indicator will lit). When the remote control is activated the control panel is locked for interaction but displays actual welding data.

5.10 USB connection

For future implementation.

Always use the cover when the USB connection is not in use.

Do not use for charging units such as mobile phones.

Weldprocess is blocked when a USB flash drive is connected. Always remove the USB flash drive after use.

6 MAINTENANCE

WARNING!
Disconnect power before performing maintenance.

CAUTION!
Only persons with the appropriate electrical knowledge (authorized personnel) may remove safety plates.

CAUTION!
The product is covered by manufacturer's warranty. Any attempt to carry out repair work by non-authorized service centers will invalidate the warranty.

NOTE!
Regular maintenance is important for safe and reliable operation.

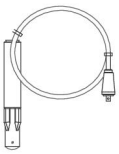
NOTE!
Perform maintenance more often during severe dusty conditions.

Before each use - make sure that:

- Product and cables are not damaged,
- The torch is clean and not damaged.

6.1 Routine maintenance

Maintenance schedule during normal conditions. Check equipment prior to every use.

Interval	Area to maintain		
Every 3 month	 Clean or replace unreadable labels.	 Clean weld terminals.	 Check or replace weld cables.
Every 6 month	 Clean inside equipment. Use dry compressed air with reduced pressure.		

6.2 Cleaning instruction

To maintain the performance and increase the lifetime of the power source it is mandatory to clean it regularly. How often depends on:

- the welding process
- the arc time
- the working environment

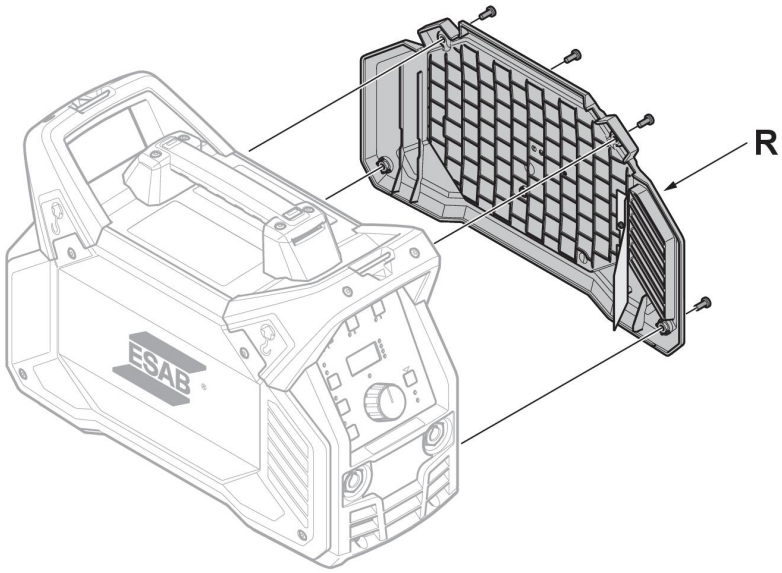
CAUTION!
Make sure that the cleaning procedure is done in a suitable prepared workspace.

CAUTION!
During cleaning, always wear recommended personal safety equipment, such as ear plugs, safety glasses, masks, gloves and safety shoes.

1. Disconnect the power source from the mains supply.

WARNING!
Wait at least 30 seconds for the capacitors to discharge before continuing.

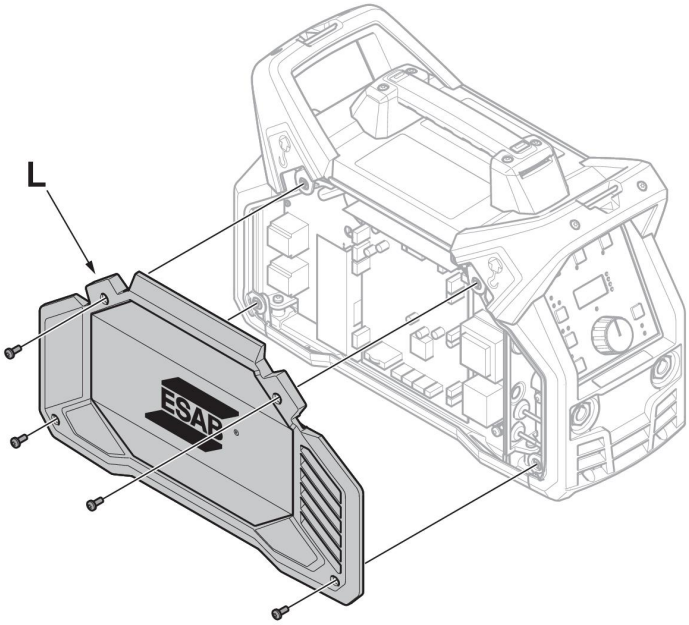
2. Remove the four screws holding the right side panel (R) and remove the panel.



3. Clean the right side of the power source, using dry compressed air with reduced pressure.

NOTE!
Since the power source contains one "dirty side" (the right side) and one "clean side" (the left side), it is important that you do not remove **the left** side panel before cleaning the right side of the power source.

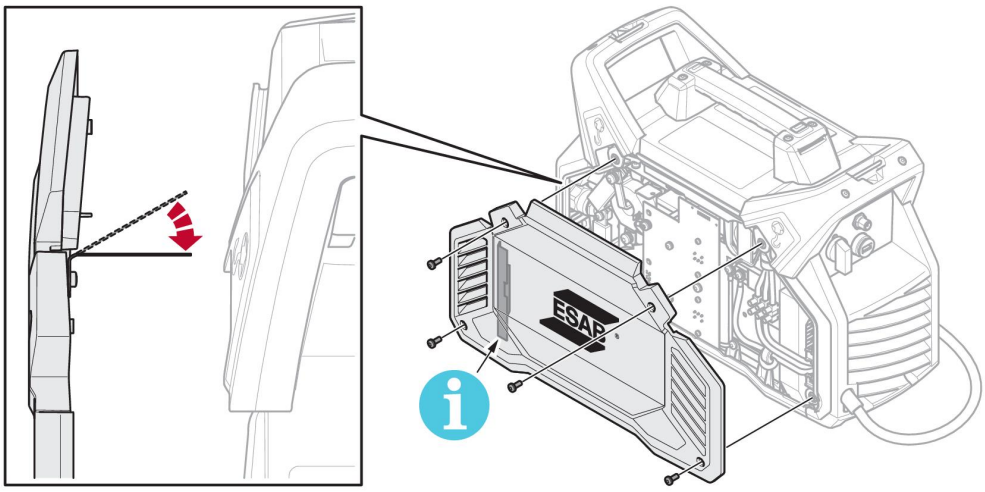
4. Remove the four screws holding the left side panel (L) and remove the panel.



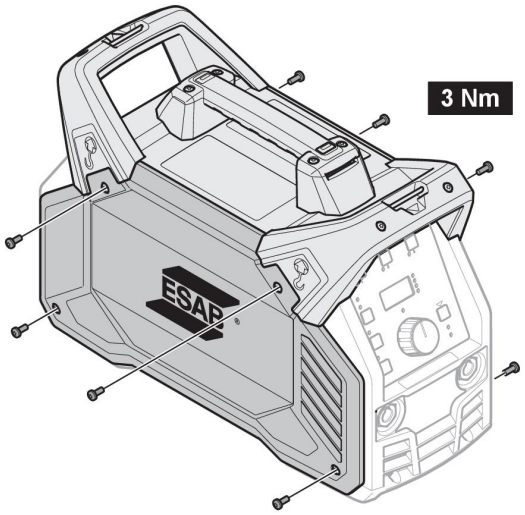
5. Clean the left side of the power source, using dry compressed air with reduced pressure.
6. Make sure that there is no dust left on any part of the power source.
7. After having finished cleaning the power source, reattach the power source panels in the reverse order.

NOTE!

When reattaching the right side panel, make sure the IP shield on the inside of the panel is in the correct position. The IP shield should be angled approximately 90° into the power source, so that it is positioned between the welding outlet connector and the transformer outlets.



8. Tighten the screws using the correct tightening torque according to the illustration below.



7 TROUBLESHOOTING

Perform these checks and inspections before sending for an authorized service technician.

Type of fault	Corrective action
MMA welding problems	• Check that the welding and return cables are correctly connected on power source. • Make sure the return clamp has proper contact with the work piece. • Check that the correct electrodes and polarity are being used. For polarity, check electrode packaging. • Check that the correct current value is set. • Adjust Arc Force and Hot start.
TIG welding problems	• Check that the welding and return cables are correctly connected on power source. • Make sure the return clamp has proper contact with the work piece. • Make sure the TIG torch lead is connected to negative welding terminal. • Make sure the correct shielding gas, gas flow, welding current, filler rod placement, electrode diameter and welding mode on power source is used. • Make sure the gas valve on the TIG torch is on.
No arc	• Check that display is on to verify that the power source has power. • Check setting panel display correct values. • Check that the mains power supply switch is turned on. • Check that the mains, welding and return cables are correctly connected. • Check the mains power supply fuses.
Welding current is interrupted during welding	• Check whether the overheating light (thermal protection) at setting panel is on. • Continue with "No Arc".
The thermal protection trips frequently	• Make sure the recommended duty cycle for the weld current has not been exceeded. See section "Duty cycle" in the TECHNICHAL DATA chapter. • Make sure the air inlets or outlets are not clogged. • Clean inside machine according to routine mainteance.

8 ERROR CODES

The error code is used to indicate that a fault has occurred in the equipment. It is given in the display by an E followed by a error code number.

A unit number is displayed to indicate which unit has generated the fault.

Error code numbers and unit numbers are shown alternately.

If several faults have been detected only the error code for the last occurring fault is displayed. Press any function button or turn the knob to remove the fault indication from the display.

NOTE!
If the remote control unit is activated, deactivate it by pressing the remote symbol to remove the fault indication.

8.1 List of error codes

U 0 = weld current unit

U 2 = power source

U 4 = remote control unit

8.2 Error code descriptions

Below are described event codes at which the user himself can take corrective action. If any other code is shown, send for a service technician.

Error code	Description
Err 1	**Temperature fault** The temperature of the power source is too high. A LED indicating temperature fault is also lit on the panel. **Action:** The fault code will automatically disappear and the LED indicating temperature fault will be turned off when the power source has cooled off and is ready for use again.
Err 3	**Power supply fault** The power supply to the power source is too low or too high. **Action:** Make sure the power supply is stable, all leads are connected and restart the system. If the error persists, send for a service technician.
Err 4	**Communication fault** The communication in the power source has been disrupted. **Action:** Restart the power source. If the error persists, send for a service technician.
Err 5	**Memory fault** The program memory is damaged. This fault can disable preset functions or other functions where values are stored. **Action:** Remove the fault indication from the display by pressing a button on the panel. Restart the power sourde. If the error persists, send for a service technician.

Error code	Description
Err 6	**Timing fault** The power source electronics are not able to execute all functions in a timely fashion. **Action:** Restart the power source. If the error persists, send for a service technician.
Err 7	**OCV fault** The OCV is too high or the electronic control of the OCV has been disrupted. **Action:** Restart the power source. If the error persists, send for a service technician.

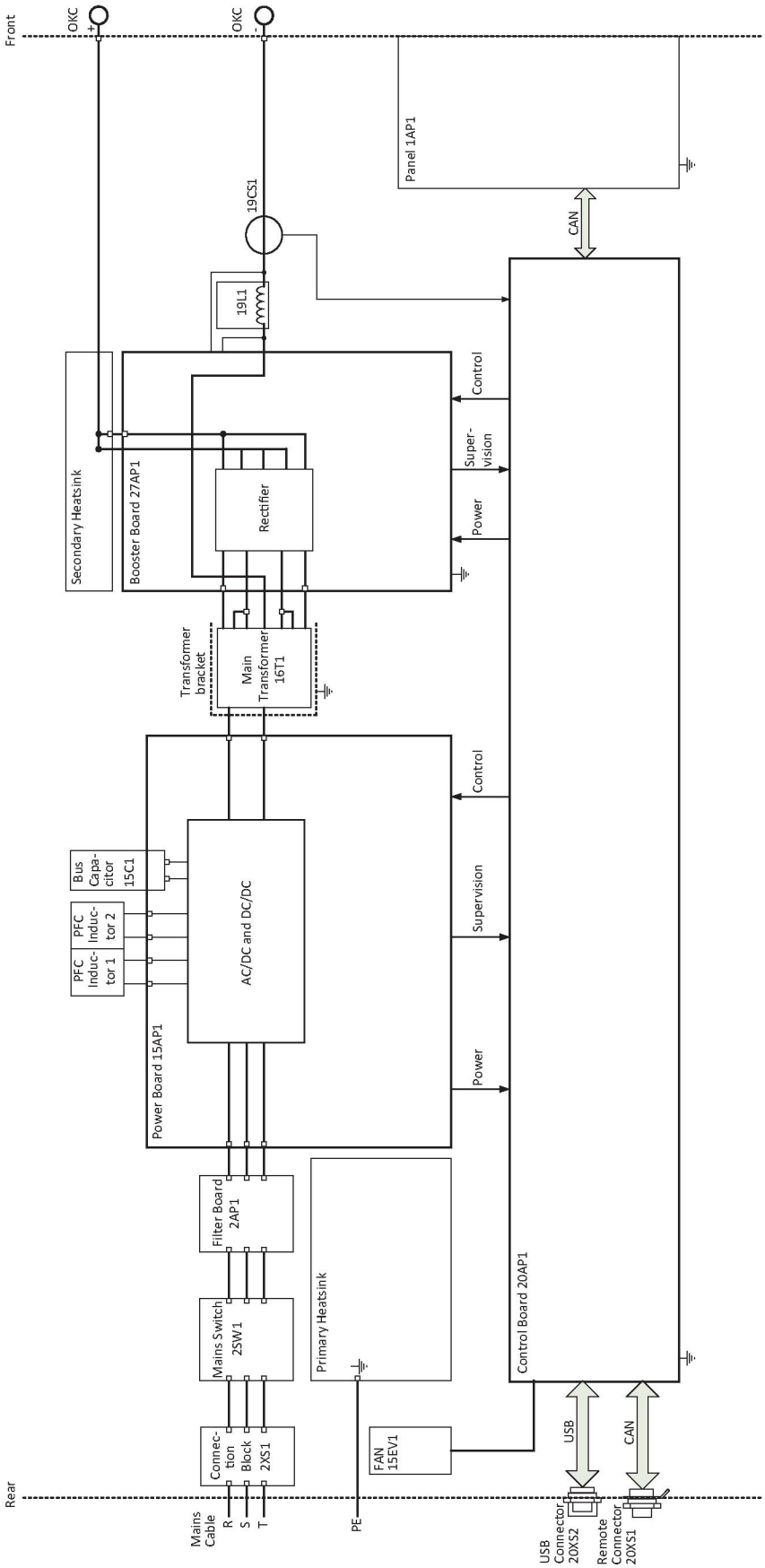
9 ORDERING SPARE PARTS

CAUTION!
Repair and electrical work should be performed by an authorised ESAB service technician. Use only ESAB original spare and wear parts.

The ES 300i is designed and tested in accordance with international and european standards **IEC/EN 60974-1** and **IEC/EN 60974-10**. On completion of service or repair work, it is the responsibility of the person(s) performing the work to ensure that the product still complies with the requirements of the above standard.

Spare parts and wear parts can be ordered through your nearest ESAB dealer, see the back cover of this document. When ordering, please state product type, serial number, designation and spare part number in accordance with the spare parts list. This facilitates dispatch and ensures correct delivery.

DIAGRAM

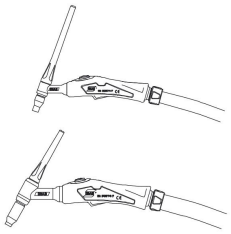
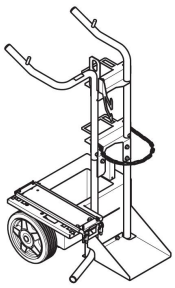
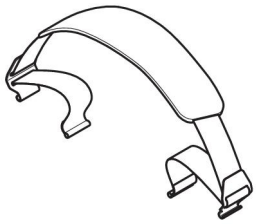
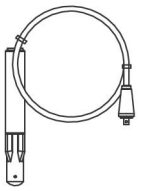
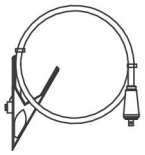
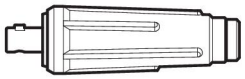
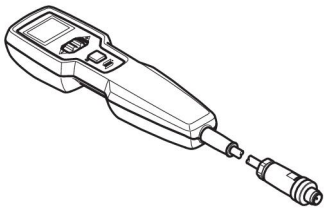


ORDERING NUMBERS

Ordering number	Denomination	Type	Notes
0445 100 880	Welding power source	ES 300i	Europe
0463 423 001	Spare parts list	ES 300i	

Technical documentation is available on the Internet at **www.esab.com**

ACCESSORIES

TIG torches		
0700 300 539	TXH™ 151 V, OKC 50, 4 m	
0700 300 545	TXH™ 151 V, OKC 50, 8 m	
0700 300 553	TXH™ 201 V, OKC 50, 4 m	
0700 300 556	TXH™ 201 V, OKC 50, 8 m	
0460 330 881	Trolley	
0445 124 880	Shoulder strap	
0700 006 902	Electrode holder OKC 50, 3 m	
0700 006 888	Electrode holder OKC 50, 5 m	
0700 006 903	Return cable OKC 50, 3 m	
0700 006 889	Return cable OKC 50, 5 m	
0160 360 881	OKC 50 male contact, pack 4 pcs	
0445 536 880	EWR 1 Remote Control (5 m cable included)	
0445 450 880	Remote control cable, 5 m	
0445 451 880	Remote control cable, 10 m	
0445 452 880	Remote control cable, 25 m	

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