

# BESTER S 171 & 211

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## OPERATOR'S MANUAL



ENGLISH

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**LINCOLN**<sup>®</sup>  
**ELECTRIC**  
BESTER SERIES

Lincoln Electric Bester Sp. z o.o.  
ul. Jana III Sobieskiego 19A, 58-260 Bielawa, Poland  
[www.lincolnelectric.eu](http://www.lincolnelectric.eu)

**THANKS!** For having chosen the QUALITY of Lincoln Electric products.

- Please Examine Package and Equipment for Damage. Claims for material damaged in shipment must be notified immediately to the dealer.
- For future reference record in the table below your equipment identification information. Model Name, Code & Serial Number can be found on the machine rating plate.

Model Name:	
Code & Serial Number:	
Date & Where Purchased	

## ENGLISH INDEX

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# Technical Specifications

NAME		INDEX			
BESTER S 171		B18267-1			
BESTER S 211		B18268-1			
INPUT					
	Input Voltage U <sub>1</sub>	EMC Class	Frequency		
BESTER S 171	230+15% /-10%, 1-phase	A	50/60Hz		
BESTER S 211	230+15% /-10%, 1-phase	A	50/60Hz		
	Input Power at Rated Cycle	I <sub>1max</sub>	PF	η [%]	
BESTER S 171	8,2 kVA @ 20% Duty Cycle (40°C)	35 A	0.6	85	
BESTER S 211	11,5 kVA @ 10% Duty Cycle (40°C)	49 A	0.59	82	
RATED OUTPUT					
	Process	Open Circuit Voltage	Duty Cycle 40°C (based on a 10 min. period)	Output Current	Output Voltage
BESTER S 171	SMAW	84 Vdc	20%	160 A*	26.4 Vdc
			60%	95 A	23.8 Vdc
			100%	75 A	23 Vdc
	GTAW (Lift TIG)	76 Vdc	20%	160 A*	16.4 Vdc
			60%	95 A	13,8 Vdc
			100%	75 A	13 Vdc
BESTER S 211	SMAW	84 Vdc	10%	200 A*	28 Vdc
			60%	85 A	23.4 Vdc
			100%	65 A	22.6 Vdc
	GTAW (Lift TIG)	77 Vdc	20%	200 A*	18 Vdc
			60%	85 A	13.4 Vdc
			100%	65 A	12.6 Vdc
WELDING CURRENT RANGE					
	SMAW	GTAW (Lift TIG)			
BESTER S 171	15 A ÷ 160 A	15 A ÷ 160 A			
BESTER S 211	15 A ÷ 200 A	15 A ÷ 200 A			
RECOMMENDED INPUT CABLE AND FUSE SIZES					
	Fuse Type gR or Circuit Breaker Type D	Power Lead			
BESTER S 171/211	B 16 A (B 25 A)**	3 Conductor, 2,5mm <sup>2</sup>			
WELDING VOLTAGE REGULATION RANGE					
	SMAW	GTAW (Lift TIG)			
BESTER S 171	20.6 V ÷ 26.4 V	10.6 V ÷ 16.4 V			
BESTER S 211	20.6 V ÷ 28 V	10.6 V ÷ 18 V			
DIMENSION					
	Weight	Height	Width	Length	
BESTER S 171 BESTER S 211	3,5 kg	215 mm	128 mm	299 mm	
OTHERS					
BESTER S 171/211	Protection Rating		Operating Humidity (t=20°C)		
	IP21S		≤ 90 %		
	Operating Temperature		Storage Temperature		
	from -10°C to +40°C		from -25°C to 55°C		

**NOTE:** The above parameters are subject to change with the improvement of machine

\*When welding with maximum current I<sub>2</sub>>160A replace input plug with one>16A.

# ECO design information

The equipment has been designed in order to be compliant with the Directive 2009/125/EC and the Regulation 2019/1784/EU.

Efficiency and idle power consumption:

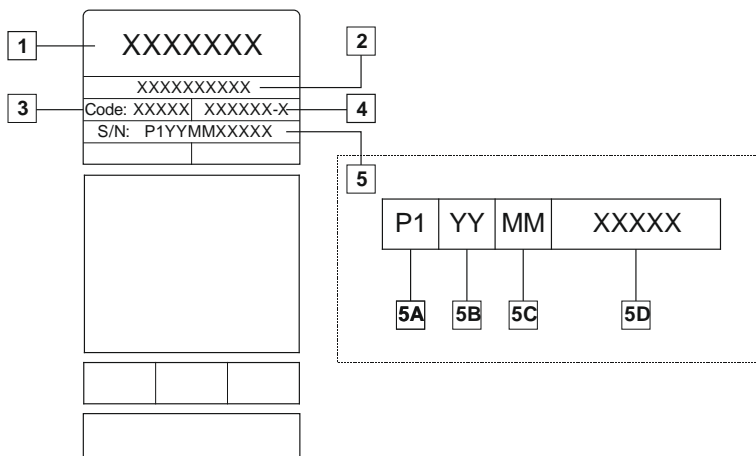
Index	Name	Efficiency when max power consumption / Idle power consumption	Equivalent model
B18267-1	BESTER S 171	85%/ N/A	No equivalent model
B18268-1	BESTER S 211	82%/ N/A	No equivalent model

Idle state occurs under the condition specified in below table:

IDLE STATE	
Condition	Presence
TIG mode	N/A
STICK mode	N/A
After 30 minutes of non-working	N/A
Fan off	N/A

The value of efficiency and consumption in idle state have been measured by method and conditions defined in the product standard EN 60974-1, -10.

Manufacturer's name, product name, code number, product number, serial number and date of production can be read from rating plate.



Where:

- 1- Manufacturer name and address
- 2- Product name
- 3- Code number
- 4- Product number
- 5- Serial number
- 5A- country of production
- 5B- year of production
- 5C- month of production
- 5D- progressive number different for each machine

## Tig Process:

In TIG welding process, gas usage depends on cross-sectional area of the nozzle. For commonly used torches:

Helium: 14-24 l/min, Argon: 7-16 l/min

**NOTE:** Excessive flow rates causes turbulence in the gas stream which may aspirate atmospheric contamination into the welding pool.

**NOTE:** A cross wind or draft moving can disrupt the shielding gas coverage, in the interest of saving of protective gas use screen to block air flow.



## End of life

At end of life of product, it has to be disposal for recycling in accordance with Directive 2012/19/EU (WEEE), information about the dismantling of product and Critical Raw Material (CRM) present in the product, can be found at <https://www.lincolnelectric.com/en-gb/support/Pages/operator-manuals-eu.aspx>



# Electromagnetic Compatibility (EMC)

11/04

This machine has been designed in accordance with all relevant directives and standards. However, it may still generate electromagnetic disturbances that can affect other systems like telecommunications (telephone, radio, and television) or other safety systems. These disturbances can cause safety problems in the affected systems. Read and understand this section to eliminate or reduce the amount of electromagnetic disturbance generated by this machine.



This machine has been designed to operate in an industrial area. To operate in a domestic area it is necessary to observe particular precautions to eliminate possible electromagnetic disturbances. The operator must install and operate this equipment as described in this manual. If any electromagnetic disturbances are detected the operator must put in place corrective actions to eliminate these disturbances with, if necessary, assistance from

Lincoln Electric.

Before installing the machine, the operator must check the work area for any devices that may malfunction because of electromagnetic disturbances. Consider the following.

- Input and output cables, control cables, and telephone cables that are in or adjacent to the work area and the machine.
- Radio and/or television transmitters and receivers. Computers or computer controlled equipment.
- Safety and control equipment for industrial processes. Equipment for calibration and measurement.
- Personal medical devices like pacemakers and hearing aids.
- Check the electromagnetic immunity for equipment operating in or near the work area. The operator must be sure that all equipment in the area is compatible. This may require additional protection measures.
- The dimensions of the work area to consider will depend on the construction of the area and other activities that are taking place.

Consider the following guidelines to reduce electromagnetic emissions from the machine.

- Connect the machine to the input supply according to this manual. If disturbances occur it may be necessary to take additional precautions such as filtering the input supply.
- The output cables should be kept as short as possible and should be positioned together. If possible connect the work piece to ground in order to reduce the electromagnetic emissions. The operator must check that connecting the work piece to ground does not cause problems or unsafe operating conditions for personnel and equipment.
- Shielding of cables in the work area can reduce electromagnetic emissions. This may be necessary for special applications.

## WARNING

The 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 in those locations, due to conducted as well as radiated disturbances.



## WARNING

This equipment does not comply with IEC 61000-3-12. If it is connected to a public low-voltage system, it is responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment may be connected.

# Safety












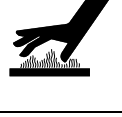

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## WARNING

This equipment must be used by qualified personnel. Be sure that all installation, operation, maintenance and repair procedures are performed only by qualified person. Read and understand this manual before operating this equipment. Failure to follow the instructions in this manual could cause serious personal injury, loss of life, or damage to this equipment. Read and understand the following explanations of the warning symbols. Lincoln Electric is not responsible for damages caused by improper installation, improper care or abnormal operation.



WARNING: This symbol indicates that instructions must be followed to avoid serious personal injury, loss of life, or damage to this equipment. Protect yourself and others from possible serious injury or death.

	<b>READ AND UNDERSTAND INSTRUCTIONS:</b> Read and understand this manual before operating this equipment. Arc welding can be hazardous. Failure to follow the instructions in this manual could cause serious personal injury, loss of life, or damage to this equipment.
	<b>ELECTRIC SHOCK CAN KILL:</b> Welding equipment generates high voltages. Do not touch the electrode, work clamp, or connected work pieces when this equipment is on. Insulate yourself from the electrode, work clamp and connected work pieces.
	<b>ELECTRICALLY POWERED EQUIPMENT:</b> Turn off input power using the disconnect switch at the fuse box before working on this equipment. Ground this equipment in accordance with local electrical regulations.
	<b>ELECTRICALLY POWERED EQUIPMENT:</b> Regularly inspect the input, electrode, and work clamp cables. If any insulation damage exists replace the cable immediately. Do not place the electrode holder directly on the welding table or any other surface in contact with the work clamp to avoid the risk of accidental arc ignition.
	<b>ELECTRIC AND MAGNETIC FIELDS MAY BE DANGEROUS:</b> Electric current flowing through any conductor creates electric and magnetic fields (EMF). EMF fields may interfere with some pacemakers and welders having a pacemaker shall consult their physician before operating this equipment.
	<b>CE COMPLIANCE:</b> This equipment complies with the European Community Directives.
	<b>ARTIFICIAL OPTICAL RADIATION:</b> According with the requirements in 2006/25/EC Directive and EN 12198 Standard, the equipment is a category 2. It makes mandatory the adoption of Personal Protective Equipment (PPE) having filter with a protection degree up to a maximum of 15, as required by EN169 Standard.
	<b>FUMES AND GASES CAN BE DANGEROUS:</b> Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. To avoid these dangers the operator must use enough ventilation or exhaust to keep fumes and gases away from the breathing zone.
	<b>ARC RAYS CAN BURN:</b> Use a shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc when welding or observing. Use suitable clothing made from durable flame-resistant material to protect you skin and that of your helpers. Protect other nearby personnel with suitable, non-flammable screening and warn them not to watch the arc nor expose themselves to the arc.
	<b>WELDING SPARKS CAN CAUSE FIRE OR EXPLOSION:</b> Remove fire hazards from the welding area and have a fire extinguisher readily available. Welding sparks and hot materials from the welding process can easily go through small cracks and openings to adjacent areas. Do not weld on any tanks, drums, containers, or material until the proper steps have been taken to insure that no flammable or toxic vapors will be present. Never operate this equipment when flammable gases, vapors or liquid combustibles are present.
	<b>WELDED MATERIALS CAN BURN:</b> Welding generates a large amount of heat. Hot surfaces and materials in work area can cause serious burns. Use gloves and pliers when touching or moving materials in the work area.
	<b>CYLINDER MAY EXPLODE IF DAMAGED:</b> Use only compressed gas cylinders containing the correct shielding gas for the process used and properly operating regulators designed for the gas and pressure used. Always keep cylinders in an upright position securely chained to a fixed support. Do not move or transport gas cylinders with the protection cap removed. Do not allow the electrode, electrode holder, work clamp or any other electrically live part to touch a gas cylinder. Gas cylinders must be located away from areas where they may be subjected to physical damage or the welding process including sparks and heat sources.
	<b>SAFETY MARK:</b> This equipment is suitable for supplying power for welding operations carried out in an environment with increased hazard of electric shock.

The manufacturer reserves the right to make changes and/or improvements in design without upgrade at the same time the operator's manual.

# Introduction

The welding machines **BESTER S 171 & 211** enables welding:

- SMAW (MMA)
- GTAW (Lift TIG).

The complete package **BESTER S 171 & 211** contains:

- Work lead – 3m
- SMAW (MMA) electrode holder – 3m.

Recommended equipment, which can be bought by user, was mentioned in the chapter "Accessories".

# Installation and Operator Instructions

Read this entire section before installation or operation of the machine.

## Location and Environment

This machine will operate in standard environments. However, it is important that simple preventative measures are followed to assure long life and reliable operation:

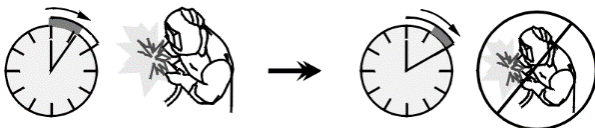
- Do not place or operate this machine on a surface with an incline greater than 15° from horizontal.
- Do not use this machine for pipe thawing.
- This machine must be located where there is free circulation of clean air without restrictions for air movement to and from the air vents. Do not cover the machine with paper, cloth or rags when switched on.
- Dirt and dust that can be drawn into the machine should be kept to a minimum.
- This machine has a protection rating of IP21S. Keep it dry when possible and do not place it on wet ground or in puddles.
- Locate the machine away from radio controlled machinery. Normal operation may adversely affect the operation of nearby radio controlled machinery, which may result in injury or equipment damage. Read the section on electromagnetic compatibility in this manual.
- Do not operate in areas with an ambient temperature greater than 40°C.

## Duty cycle and Overheating

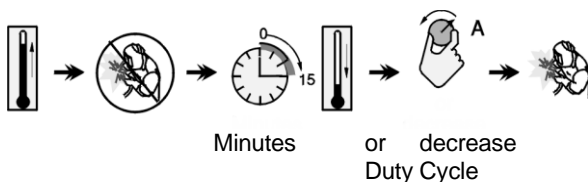
The duty cycle of a welding machine is the percentage of time in a 10 minute cycle at which the welder can operate the machine at rated welding current.

Example: 60% duty cycle

Welding for 6 minutes.      Break for 4 minutes.



Excessive extension of the duty cycle will cause the thermal protection circuit to activate.



## Input Supply Connection

Check the input voltage, phase and frequency supplied to this machine before turning it on. Verify the connection of ground wires from the machine to the input source. The welding machines **BESTER S 171 & 211**, must be connected to a correctly installed plug-in socket with an earth pin.

Input voltage is 230V, 50/60Hz. For more information about input supply refer to the technical specification section of this manual and to the rating plate of the machine.

Make sure that the amount of mains power available from the input supply is adequate for normal operation of the machine. The necessary delayed fuse (or circuit breaker with "D" characteristic) and cable sizes are indicated in the technical specification section of this manual.

### WARNING

The welding machine can be supplied from a power generator of output power at least 30% larger than input power of the welding machine.

### WARNING

When powering welder from a generator be sure to turn off welder first, before generator is shut down, in order to prevent damage to welder!

## Power Source Placement and connections

### WARNING

Avoid excessive dust, acid and corrosive materials in the air.


Keep protected from rain and direct sun when in use outdoors.



There should be 500 mm space about for the welding machine to have good ventilation.

Use adequate ventilation when in confined areas.



## Output Connections and Front Panel Control





1. Carrying handle and strap space for handling.
2. Display: Shows value welding current, chosen welding mode, parameters for setup and stick electrode suggested size. During welding shows the actual welding current value, chosen welding mode and AMPS value.
3. Thermal protection indicator: This icon  lights up when the welding is overheated and output current will stop. Wenn icon will disappear then machine will be ready to work.
4. MODE Selection Button: Allow to choose the welding process:

	SMAW (MMA)
	GTAW (Lift TIG)

5. Parameters Selection Button: This button allow switch between parameters.

SMAW (MMA) GTAW (Lift TIG)	<b>A</b>	<u>Current</u> : Setup value output current in amperage [A].
SMAW process		<u>ARC FORCE</u> : The output current is temporarily increased to clear short circuit connections between the electrode and the work piece (0-10 % of output current ).
		<u>HOT START</u> : regulation nominal current increase during ignition electrode, temporary increasing output current for electrode ignition support (0-10 % of output current ).

6. Central knob: Sets the value shown on the display. Depending on welding process can be set:
7. Negative Output Socket for the Welding Circuit: For connecting an electrode holder with lead / work lead depending on the require configuration. 
8. Positive Output Socket for the Welding Circuit: For connecting an electrode holder with lead / work lead depending on the require configuration. 
9. Power Switch ON/OFF (I/O): Controls the input power to the machine. Be sure the power source is connected to the mains supply before turning power on ("I").
10. Input cord.

### NOTE:

- The power source should be switched off when not in use.
- Welders should wear protective clothing and welding helmet to prevent injury from arc and thermal radiation.
- Care should be taken so as not to expose others to the welding arc. Use of screening is recommended.
- Do not weld near Inflammable or explosive materials.

### WARNING

When the machine is switched again on, last welding process will be recalled.

### WARNING

During SMAW process, the output terminals are still lived.

## Gas Connection




When using the GTAW (Lift TIG) process, connect the gas hose from the GTAW torch to the gas regulator on the shield gas cylinder.

## Welding SMAW (MMA) Process

**BESTER S 171 & 211** include the electrode holder with lead necessary for SMAW welding.

Procedure of begin welding of SMAW process:

- First turn the machine off.
- Determine the electrode polarity for the electrode to be used. Consult the electrode data for this information.
- Depending on the polarity of using electrode, connect the work lead and the electrode holder with lead to output socket [7] or [8] and lock them. See below.

STICK ELECTRODE POLARITY	OUTPUT SOCKET		
	DC (+)	The electrode holder with lead to SMAW	[8]
Work lead		[7]	
DC (-)	The electrode holder with lead to SMAW	[8]	
	Work lead	[7]	

- Connect the work lead to the welding piece with the work clamp.
- Install the proper electrode in the electrode holder.
- Turn the welding machine on.
- Set welding mode to MMA [4].
- Set the welding parameters.
- The welding machine is now ready to weld.
- By applying the principle of occupational health and safety at welding, welding can be begun.

User can set functions:

BESTER S 171 & 211
<ul style="list-style-type: none"> <li>• AMPERAGE</li> <li>• ARC FORCE</li> <li>• HOT START</li> </ul>

## Welding GTAW Process

**BESTER S 171 & 211** can be used to GTAW process with DC (-). Arc ignition can be achieved only by lift TIG method (contact ignition and lift ignition).

**BESTER S 171 & 211** does not include the torch to GTAW welding, but the one can be purchased separately. See "Accessories" chapter.

Procedure of begin welding of GTAW process:

- First turn the machine off.
- Connect GTAW torch to [8] output socket.
- Connect the work lead to [7] output socket.
- Connect the work lead to the welding piece with the work clamp.
- Install the proper tungsten electrode in the GTAW torch.
- Turn the machine on.
- Set up welding mode to GTAW [4]
- Set the welding parameters.
- The welding machine is now ready to weld.
- By applying the principle of occupational health and safety at welding, welding can be begun.



#### Lift TIG procedure

In this position the TIG welding process with lift mode ignition can be selected, as described previously.

#### To ignite the arc

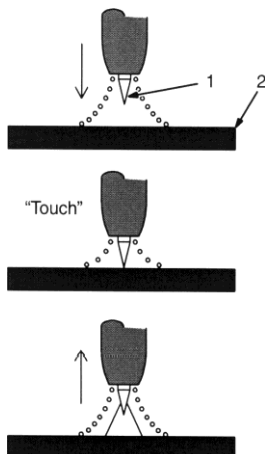
TIG welding, proceed as follows:

- Touch the welding piece with the electrode; this will cause a short circuit between the piece (2) and the electrode (1).
- Lift off the electrode; the arc will ignite.

The integrity of the electrode tip is guaranteed by the low ignition current during short-circuiting between the welding piece and the electrode ignition is guaranteed even at minimum welding current settings; the operator can therefore work without contaminating the ambient with electromagnetic disturbance, normally caused by high frequency discharges.

The advantages can be this summarized:

- no need for high-frequency startups,
- no damage to the electrode tip during start-ups, regardless of ampere setting, thereby avoiding the presence of tungsten in the welding piece, common during scratch starting.



## Transport and Lifting



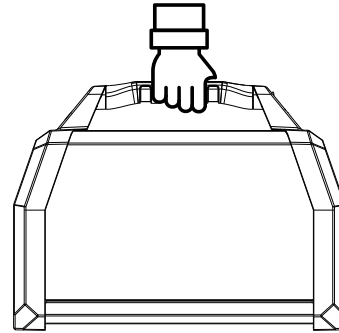
### ! WARNING

Falling equipment can cause injury and damage to unit.

Only use the handle to move the device. Do not pull on the welding or power cable.

### ! WARNING

Do not use handle to move the machine during operation.



## Maintenance

### **WARNING**

For any repair operations, modifications or maintenances, it is recommended to contact the nearest Technical Service Center or Lincoln Electric. Repairs and modifications performed by unauthorized service or personnel will cause, that the manufacturer's warranty will become null and void.

Any noticeable damage should be reported immediately and repaired.

#### **Routine maintenance (everyday)**

- Check condition of insulation and connections of the work leads and insulation of power lead. If any insulation damage exists replace the lead immediately.
- Check the welding torch condition: replace it, if necessary.
- Check condition and operation of the cooling fan. Keep clean its airflow slots.

#### **Periodic maintenance (every 200 working hours but at list once every year)**

Perform the routine maintenance and, in addition:

- Keep the machine clean. Using a dry (and low pressure) airflow, remove the dust from the external case and from the cabinet inside.
- If it is required, clean and tighten all weld terminals.

The frequency of the maintenance operations may vary in accordance with the working environment where the machine is placed.

### **WARNING**

Do not touch electrically live parts.

### **WARNING**

Before the case of welding machine will be removed, the welding machine had to be turned off and the power lead had to be disconnected from mains socket.

### **WARNING**

Mains supply network must be disconnected from the machine before each maintenance and service. After each repair, perform proper tests to ensure safety.


## Customer Assistance Policy

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

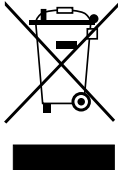
Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to [www.lincolnelectric.com](http://www.lincolnelectric.com) for any updated information.

## Troubleshooting

No.	Problem	Possible Cause	Recommended Course of Action
1	Yellow  Thermal Indicator is on	Input voltage is too high ( $\geq 15\%$ )	Switch off power source; Check the main supply. Restart welder when power recovers to normal state.
		Input voltage is too low ( $\leq 15\%$ )	
		Insufficient ventilation.	Improve the ventilation.
		Ambient temperature is too high.	It will automatically recover when the temperature reduces.
		Exceeding the rated duty-cycle.	It will automatically recover when the temperature reduces.
2	Cooling Fan not working or turning very slowly	Switch broken	Replace the switch.
		Fan broken	Replace or repair the fan.
		Wire broken or disconnected	Check the connection.
5	Arc will not start	Work cable broken	Connect / repair work cable.
		Work piece has greasy, dirty, rusty or painted	Clean work piece, ensure good electrical contact between work clamp and job.
6	No shielding gas	Torch is not connected properly.	Re-connect the torch.
		Gas pipe is crimped or blocked.	Check gas system.
		Gas hose broken.	Repair or replace.
7	Others		Please contact our Field Service Shop.

## WEEE

07/06



Do not dispose of electrical equipment together with normal waste!  
 In observance of European Directive 2012/19/EC on Waste Electrical and Electronic Equipment (WEEE) and its implementation in accordance with national law, electrical equipment that has reached the end of its life must be collected separately and returned to an environmentally compatible recycling facility. As the owner of the equipment, you should get information on approved collection systems from our local representative.  
 By applying this European Directive you will protect the environment and human health!

## Spare Parts

12/05

**Part list reading instructions**

- Do not use this part list for a machine if its code number is not listed. Contact the Lincoln Electric Service Department for any code number not listed.
- Use the illustration of assembly page and the table below to determine where the part is located for your particular code machine.
- Use only the parts marked "X" in the column under the heading number called for in the assembly page (# indicate a change in this printing).

First, read the Part List reading instructions above then refer to the "Spare Part" manual supplied with the machine, which contains a picture-descriptive part number cross-reference).

## Authorized Service Shops Location

09/16

- The purchaser must contact a Lincoln Authorized Service Facility (LASF) about any defect claimed under Lincoln's warranty period.
- Contact your local Lincoln Sales Representative for assistance in locating a LASF or go to: [https://mylincoln.lincolnelectric.com/northamerica/s/support-center?language=en\\_GB](https://mylincoln.lincolnelectric.com/northamerica/s/support-center?language=en_GB).

## Electrical Schematic

Refer to the "Spare Part" manual available on web page.  
<https://www.lincolnelectric.com/en-gb/support/Pages/operator-manuals-eu.aspx>

## Accessories

W10529-17-4V	GTAW torch WTT2 17- 4m with valve
W000011139	MMA CABLE KITS 4 meters

Machine	Fuse/Overcurrent protection type	Electrode diameter [mm]	Welding current [A]	Welded electrodes [pcs]	Arc time [sec]
<b>BESTER S 171</b> <b>BESTER S 211</b>	D16 (16A-slow)	2,0	60-70	10	Non stop
	D16 (16A-slow)	2,5	85-90	10	Non stop
	D16 (16A-slow)	3,2	120-125	6	450
	D16 (16A-slow)	4,0	130-145	Half of electrode	55
	D20 (20A -slow)	4,0	135-150	3	320
	D25 (25A-slow)	4,0	160	8	Non stop
<b>BESTER S 211</b>	D25 (25A-slow)	4,0	200	3	180

### **WARNING**

While welding above 160A, You need to change overcurrent protection for a 20A - 25A type D and change for a proper input plug (or connect directly to a power network) Example:

