KOLARC

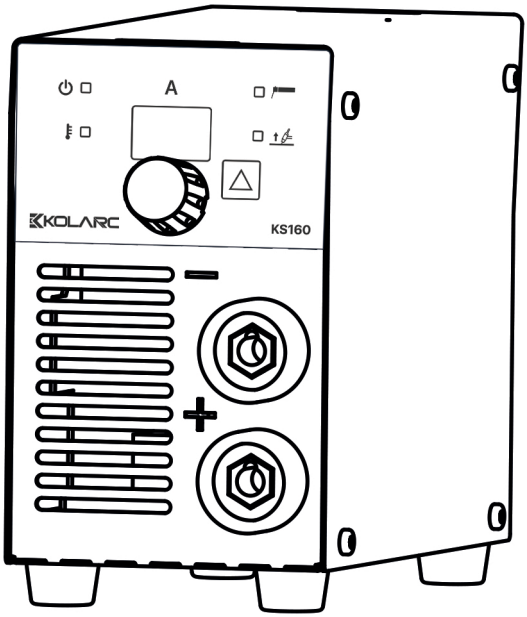
BUILDING THE FUTURE

User Manual

2024–03

Processes

Multiprocess Welding



KS160

USER MANUAL

EN

CE

Web sitemizi ziyaret edin

www.kolarc.com

TABLE OF CONTENTS

INSTALLATION AND OPERATOR INSTRUCTIONS

Location and Environment
In order to ensure the long life and reliable operation of this machine, it is useful to take some simple preventive measures.
1- Do not place or operate the machine on a surface with a slope of more than 15°.
2-The machine must be operated in an environment with fresh air flow, and there must not be any factor preventing ventilation or stopping the air flow in the place where the machine is located. The machine must not be covered with paper, cloth or similar objects during operation.
3-Dust and dirt can get into the machine. This should be minimized as far as possible. Do not work in a dusty environment or in an atmosphere with water, paint and oil particles, grinding dust and abrasive gases.
4-This machine is IP21S rated. Keep the machine as dry as possible and do not place it wet or in puddles.
5-The welding machine should be used in bright places with good ambient lighting and should not be used in the dark. It is also designed for indoor use and is not suitable for use in sunlight, rain and snow. The welding machine cannot be used for pipe melting.
6-Place the machine away from radio-controlled equipment. Normal operation of the machine may interfere with the operation of such devices in the vicinity, resulting in personal injury or equipment failure. Read the "Electromagnetic Compatibility" section in this user manual.
7-Do not operate this machine in environments with ambient temperatures lower than - 10°C and higher than +40°C and humidity levels higher than 70%. The warm-up tests were carried out at ambient temperature and the operating cycle was simulated at 40°C.
8-It may be life-threatening for unauthorized persons to open the chassis cover of the machine and intervene in electrical equipment. Those who act otherwise are deemed to have accepted in advance the negative consequences that may occur.
9-2.50 ve 3.25 mm çapındaki rutil ve basic karakterli örtüye sahip çubuk kaynak elektrodlarını yakmak üzere hafif kaynak işleri için tasarlanan alçalan karakteristikli bir kaynak makinesidir.
10-The welding machine has been checked for any defects before leaving the factory. Therefore Unauthorized persons should never be allowed to tamper with the machine. Repair operations can only be carried out by Kolarc Makine İmalat San. ve Tic. A.Ş. authorized by It must be done by "Authorized Technical Services".
11-To protect small parts, care must be taken with the pressure of the air used during cleaning.
12-Water should not be kept inside the welding machine for cleaning purposes.
13-The welding machine should not be cleaned with volatile and synthetic chemicals, a damp and soapy cloth should be used when cleaning the outer surface. Note; Power must be cut off during the process.
14-Maintenance must be carried out very carefully. Bending or incorrect connection of any cable can be very dangerous for the user.
15-Water and steam must be prevented from entering the welding machine. If the machine is affected by moisture, the inside of the machine must be dried and the insulation must be checked.
16-When the welding machine is lifted or transported, it must not be thrown randomly and must be protected from impacts.
17-If the welding machine is not to be used for a long period of time, it should be placed in its case and stored in a dry environment.

BUILDING THE FUTURE

DECLARATION OF CONFORMITY

for European Community (CE marked) products.

We KOLARC MAKİNE İMALAT SAN. VE TİC. A. Ş: 2014. Cd. No: 8/1, 06930 Alcı OSB/Sincan/Ankara, declares that the product(s) identified in this declaration conform to the essential requirements and provisions of the stated Standard(s).

Product/Apparatus Identification:

Product - KS160

Standards

- **IEC 60974 -1:2021** Arc welding equipment - Part 1: Welding power sources
- **IEC 60974 -10:2020** Arc welding equipment - Part 10: Electromagnetic compatibility (EMC) requirements

Signature:

2024-03-21

İlker OLUCAK

General Manager

Date of Declaration

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100. Yıl Mah. İzci Sok. Ekin Apt. No:24/5 06709 Çankaya/ANKARA
www.kolarc.com

WARRANTY CERTIFICATE
T.C. MINISTRY OF CUSTOMS AND TRADE
GENERAL DIRECTORATE OF CONSUMER PROTECTION AND MARKET SURVEILLANCE

Manufacturing Company

Title : Kolarc Makine İmalat Sanayi ve Ticaret A.Ş.

Address : Alcı OSB Mah, 2014. Cd. No:8/1, 06909 Alcı OSB/Sincan/ANKARA

Tel / Fax :(0312) 577 18 18 / (0312) 577 19 19 Signature - Stamp:

Goods

Type : MIG/MAG KAYNAK MAKİNESİ

Brand : KOLARC

Model : KS160

Invoice Number :

Invoice Date :

Banderole / Serial No:

This warranty certificate has been prepared based on Articles 56 and 84 of the Law on the Protection of Consumers dated 7/11/2013 and numbered 6502.

Maximum Repair Time : 20 Working Days

Warranty Period : 2 Years

Customer

Name Surname : **Contact Phone:**

Title of the Seller :

Company :

Address :

Telephone / Fax :

Delivery Date - Place :

Signature - Stamp :

WORKING CYCLE AND OVERHEATING

The operating efficiency of the machine is the percentage of the time the welder can weld at the given welding current of the machine for 10 minutes without overheating and without interruption of welding.

The machine is protected against overheating by thermal protection. When this protection is activated, the warning lamp on the front panel lights up. When the safe operating temperature is restored, the lamp goes out and welding continues.

Input Cable Connection / Controls and Operating Features :

Check the input voltage, phases and frequency before starting the machine. The input voltages to be used are indicated in the “Technical Specifications” section of the user manual and on the plate on the machine. Make sure that the cables connecting the machine to the mains are properly earthed and that sufficient current can be supplied for normal operation of the machine. The welding machine, with its plug, may only be connected to a mains supply protected by a 16 ampere delayed fuse.

1. KOLARC KS160 should be connected to single phase, 220 V (AC) and 50-60 Hz network with Single Phase and Earth line.
2. It must be connected by an authorized electrician to a network with a healthy protective earth connection approved by the competent authorities.
3. Incorrect connection will result in damage to the machine and damage caused by such connections is not covered by the warranty.

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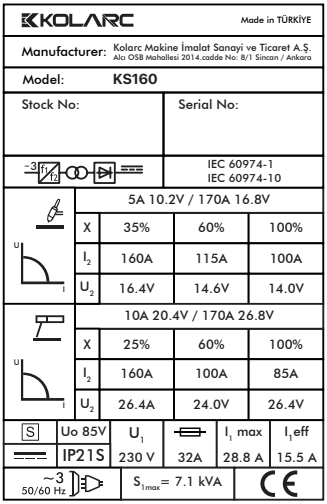
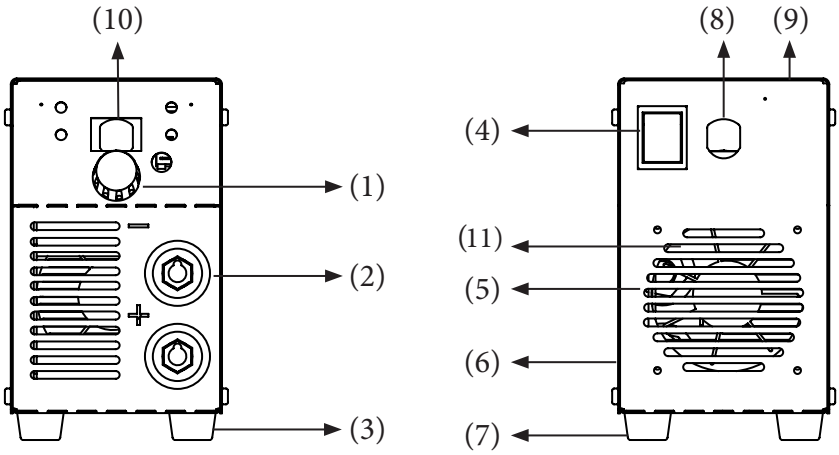
Technical Value Tag

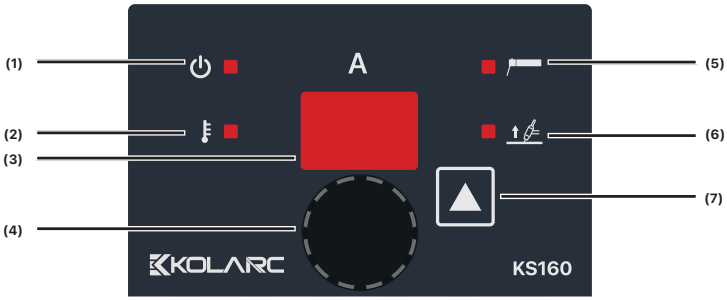


Track List



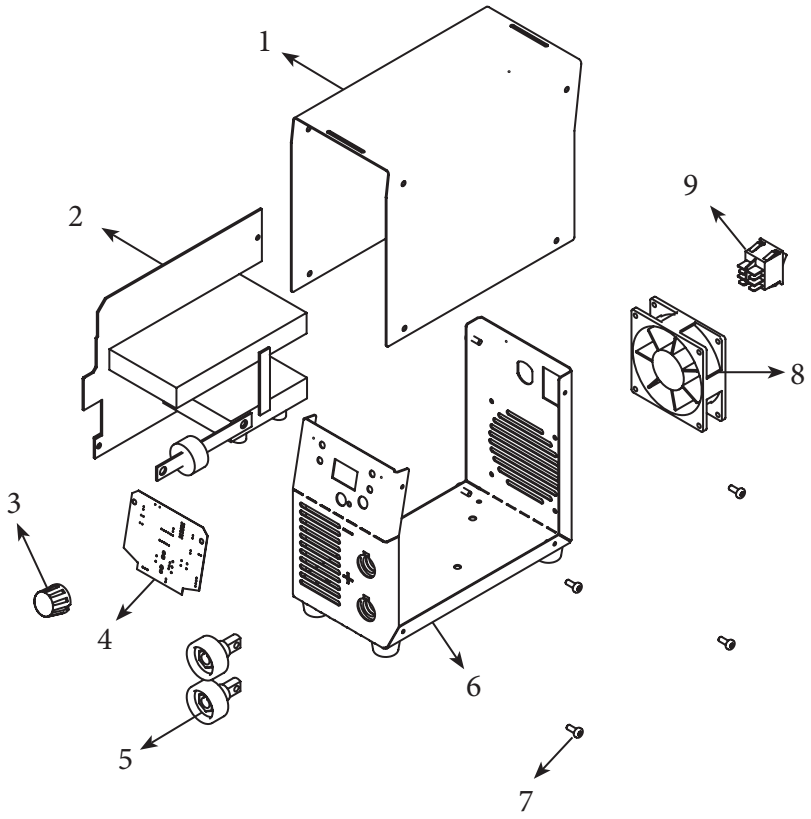
1. Ampere adjustment knob
2. Socket
3. Forefoot
4. On and off switch
5. Fan
6. Sheet metal body
7. Rear foot
8. Power cable
9. Top cover
10. Front panel board
11. Main board

Front Panel Label



1. Power indicator
2. Thermal protection indicator
3. Digital display
4. Current adjustment knob
5. Electrode indicator
6. Tig gauge
7. Electrode-Tig selection button

Parça Listesi



1. Top cover sheet
2. SocketPot düğmesi
3. Pot button
4. Front panel label sheet
5. Socket
6. Sheet metal body
7. Fan
8. Switch

Shrouded Electrode Welding

Before starting the welding process, the following operations must be performed

1. First determine which pole is suitable for the electrode being used. You can find this information in the electrode's data sheet. Then connect the welding cables to the outputs according to the selected polarity. For example, if DC (+) is to be used, connect the electrode cable to the (+) output (4) of the machine and the grounding pliers to the (-) output (3). Insert the socket with the guide pin on top and turn 1/4 turn clockwise. Make sure that the socket is securely seated without over tightening. Otherwise, loose sockets may burn due to overheating during prolonged use and when the welding current is high. For electrodes to be used in DC (-), change the cable connections so that the electrode cable is connected to the (-) output (3) and the grounding pliers to the (+) output (4). Selecting the wrong polarity will result in unstable arcing, excessive spattering and sticking of the electrode to the workpiece.

2. Attach the electrode to the electrode clamp.

3. Attach the chassis pliers to an unpainted, rust-free and clean surface of the workpiece so that their edges make full contact.

4. Insert the mains connection plug into the appropriate socket.

5. Before starting welding, make the following checks:

a. Make sure that the welding machine is securely grounded.

b.Make sure that all contact surfaces, especially the connection between the pliers at the end of the ground cable and the workpiece, are securely made.

c.Check that the welding cables are connected correctly. Spatter and sparks during welding may cause a fire. Therefore, make sure that there are no flammable materials in the welding environment.

6. Turn the On/Off switch (5) on.

7. Set the appropriate welding current value that you will determine according to the electrode diamete r, type, welding position and electrode data sheet with the "Pot Button (5) However, it is useful to make your settings according to the values specified in the catalog of the company that manufactures the shielded welding electrode you are using.

8. Start welding by following the welding rules.

This welding machine is designed for light welding work to burn rod welding electrodes with a diameter of 2.50 and 3.25 mm with rutile and basic characterized coating.

You can control the source current value you set by monitoring it from the digital display on the front panel and change it precisely according to the condition of the source when necessary.

MAINTENANCE AND TROUBLESHOOTING

Warning : The welding machine must be disconnected from the mains during maintenance. Maintenance must be performed by authorized and qualified persons.

Quarterly Care

Replace illegible labels. Clean the

connection terminals.

Make sure that the Cables and Hoses are secure

Six Monthly Maintenance

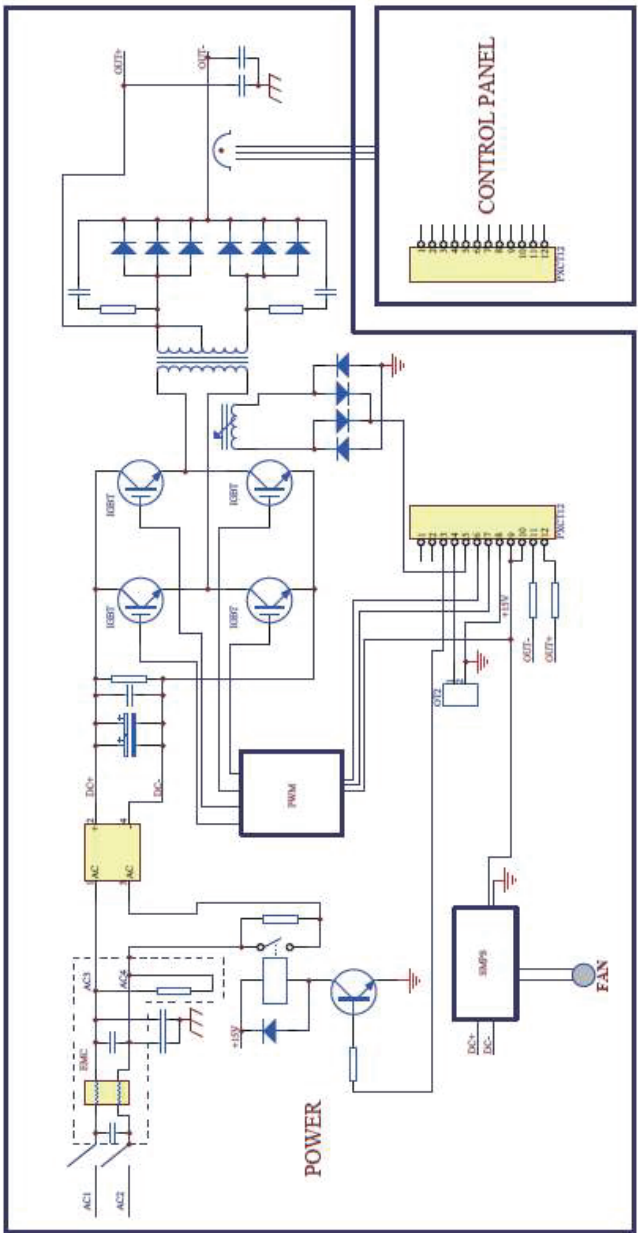
Air the machine. Do not open the machine doors during air bleeding.

Contact an authorized service center for annual maintenance. During annual maintenance, it is necessary to check the continuity of earthing and the insulation of the machine. Ask for this data in your annual maintenance report.

Hata Çözümleme Tablosu

PROBLEM	POSSIBLE ERROR	SOLUTION
The arc is not black and the welding cannot be done properly.	Incorrect or poor polarity connections	Change the polarity to the correct one and tighten the connections
	Voltage not suitable	Is the mains voltage 220 Volts? Is an extension cable of inappropriate length and cross-section being used? Check. Correct if necessary
No idle voltage output	There's something wrong with the machine	Contact the service
No current output at source	Welding cables are loose or not connected	Make sure that all cables are connected correctly.
T-1 Uyarı ışığı yanıyor	Overheating due to using high welding current or working for too long	Reduce the welding current or shorten the working time by interrupting the welding process
	Ana devrede oluşan anormal akım sonucu aşırı akım korumasının devreye girmesi	Servise başvur

Devre Şeması



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