IM-156-F
January, 1959

OPERATING MANUAL

IM156
Lincwelder AC-180-T
2020; 2240; 2256; 2276; 2277; 2362; 2363; 3587; 3669; 3704; 3949; 3950; 4062; 4063; 4072; 4192; 4227; 4249; 4269

Lincwelder AC-180-T Arc Welder

This manual covers equipment which is obsolete and no longer in production by The Lincoln Electric Co. Specifications and availability of optional features may have changed.

TO CONNECT THE WELDER TO POWER LINES

Mount the power receptacle in a suitable location, using the three screws provided (in small envelope with instructions). Be sure it can easily be reached by the power input plug.

POWER SUPPLY

The welder is designed to operate on a single phase 230 volt AC power source. It can be furnished for either a 60 or 50 cycle supply. It may be operated from a single phase line, or from one phase of a two or three phase line, fused for 40 amperes.

If input voltage is lower than 215 volts, follow instructions in the paragraph on Connecting for Low Line Voltage Conditions.

Before connecting the welder to the power lines, check with your power company to be sure the power lines are of proper capacity to handle the 37.5 amps. required.

Use three (3) conductor cable (#8 wire or larger) in conduit to connect the power receptacle to the main power line. Consult with the power company to be sure your planned installation meets the local requirements as to type and size of wire, insulation, etc.

The center receptacle contact is for the ground connection, and the wire which connects to it should be permanently connected to a water line or other suitable ground. This will insure grounding of the welder frame when the welder plug is connected to the receptacle. If a separate disconnect switch is used, it should be the two pole solid neutral type fused for 40 amperes.

CONNECTING FOR LOW LINE VOLTAGE

The welder line switch is mounted on the welder case to the left and just below the main nameplate. As shipped from the factory, this line switch is wired for normal line voltage conditions. In most installations, that connection will give correct operation of the welder.

If the input line voltage is too low to maintain the usual steady arc at normal welding currents, the connection can be changed to raise the welder output. Remove the line switch mounting plate. Reconnect for low line voltage as indicated on the diagram on the backside of the mounting plate.

Welding with the machine connected for low line voltage conditions after the line voltage has returned to normal will increase the possibility of overheating the welder or drawing more than rated input from the power lines, particularly when using the welder on maximum output taps.

WELDING CURRENT SELECTION

There are eight "plug-in" terminals for the electrode cable marked "20, 40, 60, 80, 100, 125, 150 and 180" respectively. These terminals are used to select the required current for various applications. The three "plug-in" terminals marked "High, Medium and Low" are for the ground cable or "work ground". The particular selection of this terminal is up to you for various applications. In general, for a particular application, "Higher" will mean a hotter and "Lower" will mean a cooler welding arc. Whenever welding, the electrode cable must be in one of the eight current terminals and the ground cable in one of the three ground terminals.

CAUTION: DO NOT CHANGE TERMINALS WHILE WELDING AS TERMINALS WILL BE DAMAGED.

RECOMMENDED ELECTRODES

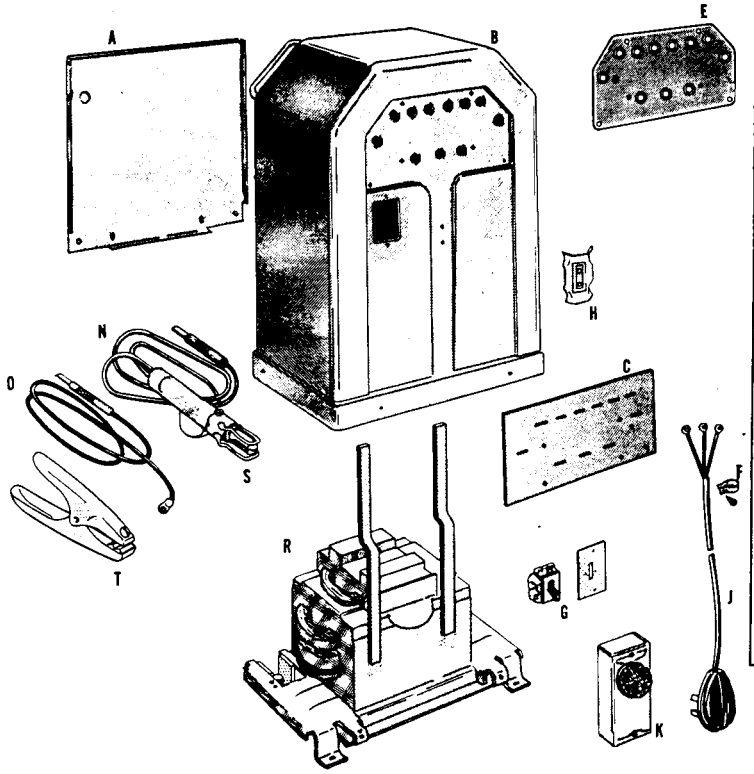
The following electrodes are recommended for use with your "Lincwelder" AC-180-T:

Fleetweld 180	Abrasoweld
Fleetweld 37	Ferroweld
Jetweld 1	Stainweld A7
	Mangjet

THE LINCOLN ELECTRIC COMPANY
The World's Largest Manufacturer of Arc Welding Equipment
Cleveland 17, Ohio

HOW TO USE PARTS LIST

1. Find the part on the drawing.
2. Using the item letter from the drawing, find the part name and description in the table.
3. Get the welder code number, found on the nameplate.
4. Order the part from a Lincoln Field Service Shop. Be sure to give the item letter, part name and description, number required, the welder name, and the welder code number.



ITEM	DESCRIPTION
A	Rear Cover Assembly
B	Case Assembly
C	Output Clip Panel Assembly, Includes: Spring Clip - 11 Required
E	Nameplate
F	Input Lead Cable Clamp
G	Line Switch Line Switch Mounting Plate
H	Output Lead Clamp
J	Power Input Cable
K	Power Outlet Box
N	Electrode Lead Assembly
O	Ground Lead Assembly
R	Wound Inner Lamination Assembly Roller
S	Electrode Holder
T	Ground Clamp Head Shield (Not Shown)

GUARANTEE

The Lincoln Electric Company warrants all new equipment against defects in workmanship and material for a period of one year from date of shipment, provided the equipment has been properly cared for and operated under normal conditions.

For a complete guarantee, refer to the Lincoln Electric Company Dealer Price Book or Field Service Shop Parts Manual.

SAFETY PRECAUTIONS

When using a welder, as with all machinery, certain safety precautions should be observed:

(1) Protect the arms and hands from rayburns and hot slag by wearing good leather gloves whenever welding.

(2) Wear a good shield fitted with the proper safety lenses to protect your eyes from sparks and arc flash.

(3) Use extreme care whenever chipping slag that chips do not fly and hit your eyes or those of your helper.

(4) Although, with rated input, this welder will have a maximum output voltage well within prescribed safety limits, carelessness can result in a serious accident. Be Careful.

(a) Ground the welder frame.

(b) Use a well constructed, properly insulated electrode holder connected to the welder by insulated welding cable.

(c) Make certain the work is well connected to the ground cable, as close to the point of welding as possible. This is particularly important when standing on wet ground or a metal framework. Under such conditions be sure you are well insulated from the ground by dry gloves and rubber soled shoes.

(d) The electrode holder should be used for welding and not for lighting cigarettes.

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The World's Largest Manufacturer of Arc Welding Equipment

CLEVELAND 17, OHIO

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Export Representatives

THE ARMCO INTERNATIONAL CORPORATION, Middletown, Ohio, U.S.A.

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