

INVERTER DC STICK WELDER

LONGRUN[®] 250LD2, 300LD2 INVERTER DC ARC WELDER

OPERATION MANUAL



MODEL	UNIT	250LD2	300LD2
INPUT VOLTAGE	V	220, Single phase	
FREQUENCY	Hz	50/60	
INPUT CAPACITY	KVA	9	11
NO LOAD VOLTAGE	V	80	82
CURRENT RANGE	A	20~250	20~300
VOLTAGE RANGE	V	27	29
DUTY CYCLE	%	60	
WEIGHT	kg	15	16.5
DIMENSION (W×D×H)	mm	210x460x300	

DO NOT INSTALL, OPERATE OR MAINTAIN THIS MACHINE WITHOUT READING THIS MANUAL AND PLEASE ALWAYS THINK BEFORE YOU ACT.

www.worldwel.com

General Safe Practices

- Wear approved safety glasses with side shields under your welding helmet or face shield and at all times in the work area.
- When working above floor level, use a safety belt to protect yourself from a fall should you get a shock.
- Do not install or place machine on or over combustible surfaces.
- Be sure that all installation, operation, maintenance and repair procedures are performed only by qualified persons.

Electric shock can kill.

- Wear Dry, hole-free insulating gloves and body protection. Do not touch electrode with bare hand. Do not wear wet or damaged gloves.
- Do not touch live electrical parts.
- Never dip the electrode in water for cooling.
- Properly install and ground all equipment.
- Protect yourself from electric shock by insulating yourself from work and ground.
Use non-flammable, dry insulating material if possible, or use dry rubber mats, dry wood or plywood, or other dry insulating material big enough to cover your full area of contact with the work or ground, and watch for fire.
- Turn off input power using the disconnect switch at the fuse box before working on the equipment.
- Frequently inspect input power cord for damage or bare wiring and repair or replace cord immediately if damaged.

Fumes and gases can be dangerous.

- Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. When welding, keep your head out of the fume. Use enough ventilation and/or exhaust at the arc to keep fumes and gases away from the breathing zone.
- Use enough forced ventilation or local exhaust (forced suction) at the arc to remove the fumes from your breathing area.
- Use a ventilating fan to remove the fumes from the breathing zone and welding area.

Arc rays can burn eyes and skin.

- Use welding helmet with correct shade of filter to protect your eyes from sparks and the rays of the arc.
- Wear welders cap and safety glasses with side shields. Use ear protection when welding out of position or in confined spaces. Button shirt collar.
- Wear complete body protection. Wear oil-free protective clothing such as leather gloves, heavy shirt, cuffless pants and high boots.

Welding sparks can cause fire or explosion.

- Remove fire hazards from the welding area. If this is not possible, cover them to prevent the welding sparks from starting a fire. Remember that welding sparks and hot materials from welding can easily go through small cracks and opening to adjacent areas. Avoid welding near hydraulic lines.
- When not welding, make certain no part of the electrode circuit is touching the work or ground. Accidental contact can cause overheating and create a fire hazard.
- Do not weld on drums, tanks, or any closed containers unless a qualified person has tested it and declared it or prepared it to be safe.
- Connect the work cable to the work as close to the welding area as practical. Work cables connected to the building framework or other locations away from the welding area increase the possibility of the welding current passing through lifting chains, crane cables or other alternate circuits. This can create fire hazards or overheat lifting chains or cables until they fail.

■ **INSTALLATION**

● **The welding machine shall be installed at a place ;**

- free from the inflammables
- less humidity, dirt and dust
- protecting from influence of direct sunlight, wind and rain
- not generated oil vapor and corrosive gas
- operating temperature range is from -10°C to 40°C
- least 30cm away from wall and other welding machine

● **Input Connection (Rear of the machine)**

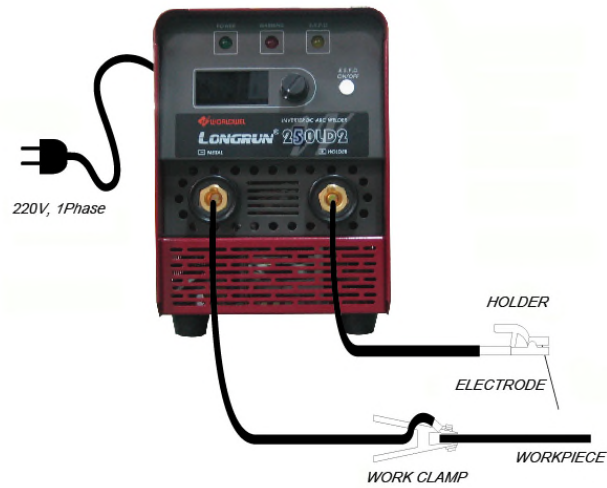
Be Sure the voltage, phase and frequency of the input power is as specified on the name plate located on the rear panel of the machine.

- To connect the power cables, turn the power switch "OFF"
- Verify the voltage to be supplied from main power.
- Open the cover of terminal and connect the power cable to the power input terminal on the rear of the machine and close the cover of terminal. For grounding the machine, connect a ground wire to the ground terminal marked with the symbol is located on the rear panel of the machine.
- In case of the 160LD, 180LD and 200LD to be supplied with input cord, please plug in a input power cord into a receptacle that is grounded.

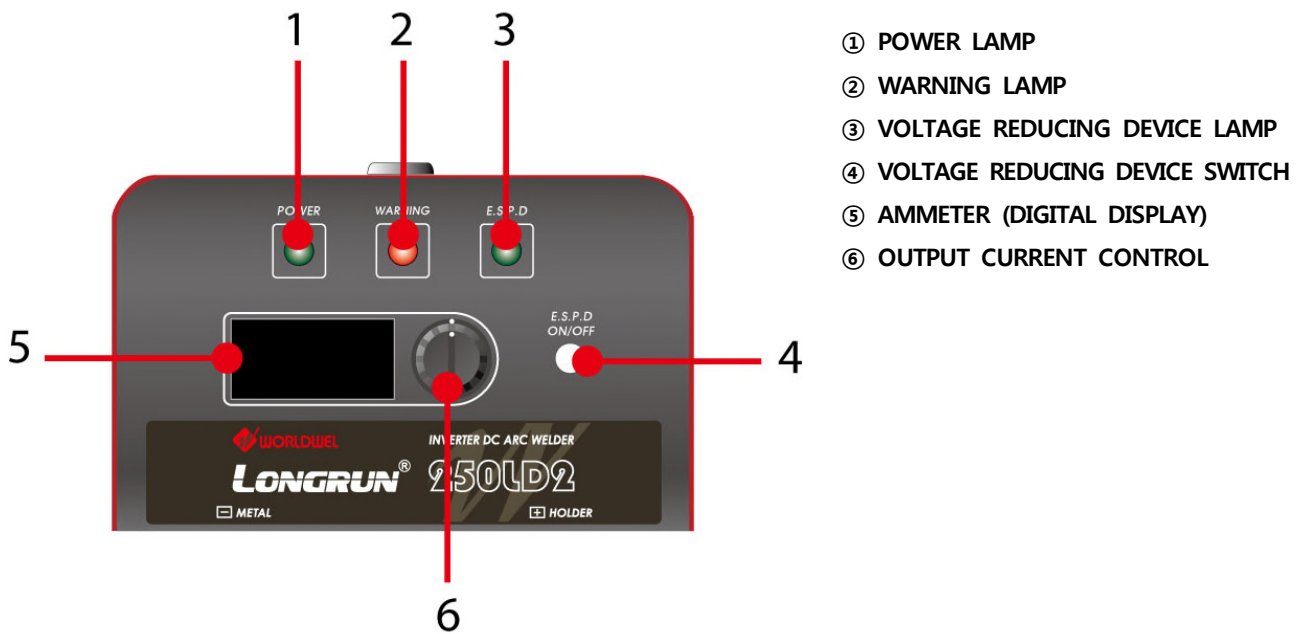
● **Output Connection (Front of the machine)**

- Connect the electrode cable (which is connected to the electrode holder) to the "HOLDER (+)" terminal.
- Connect the work cable (which is connected to the work clamp) to the "METAL (-)" terminal.

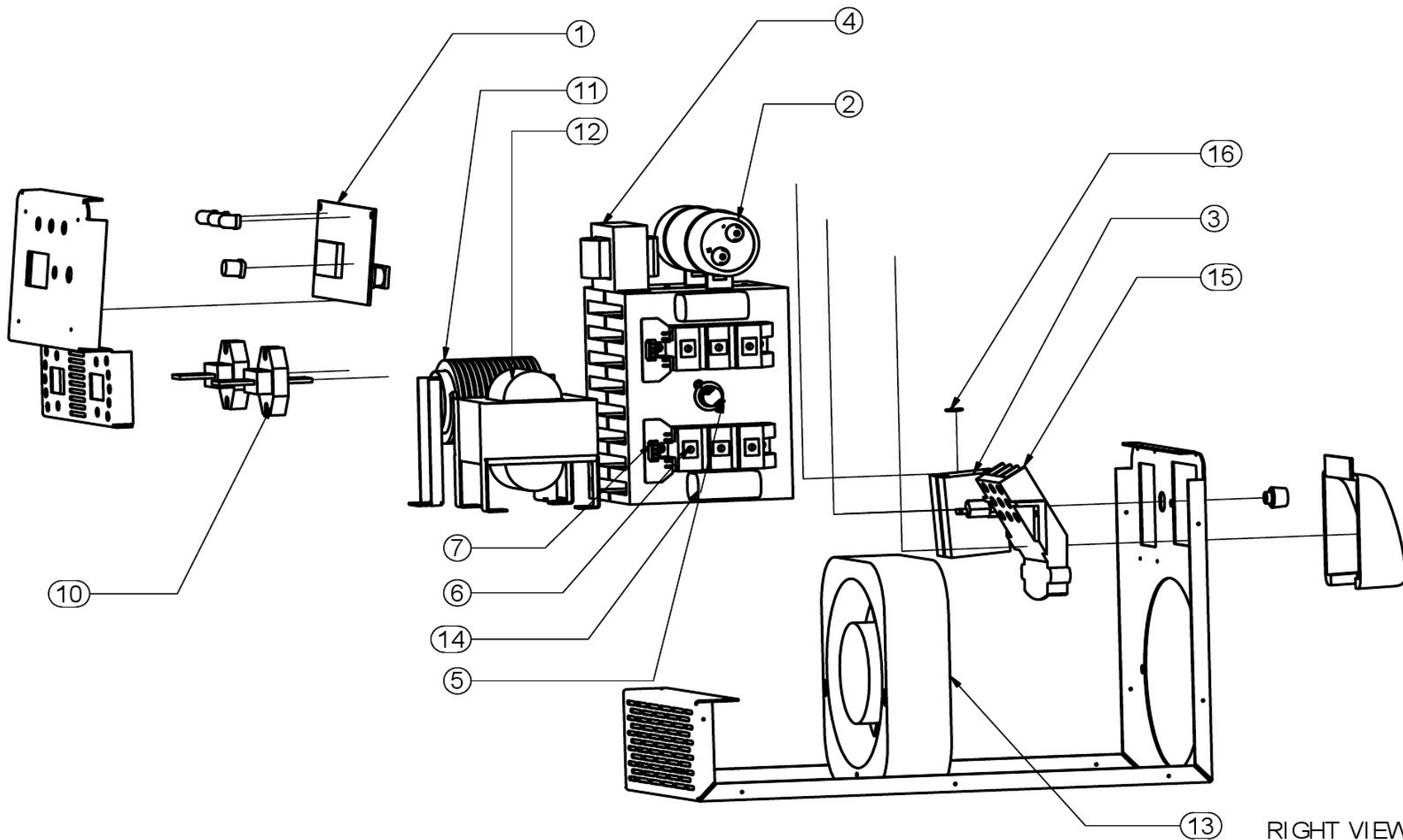
● CONNECTION



● FRONT CONTROL PANEL

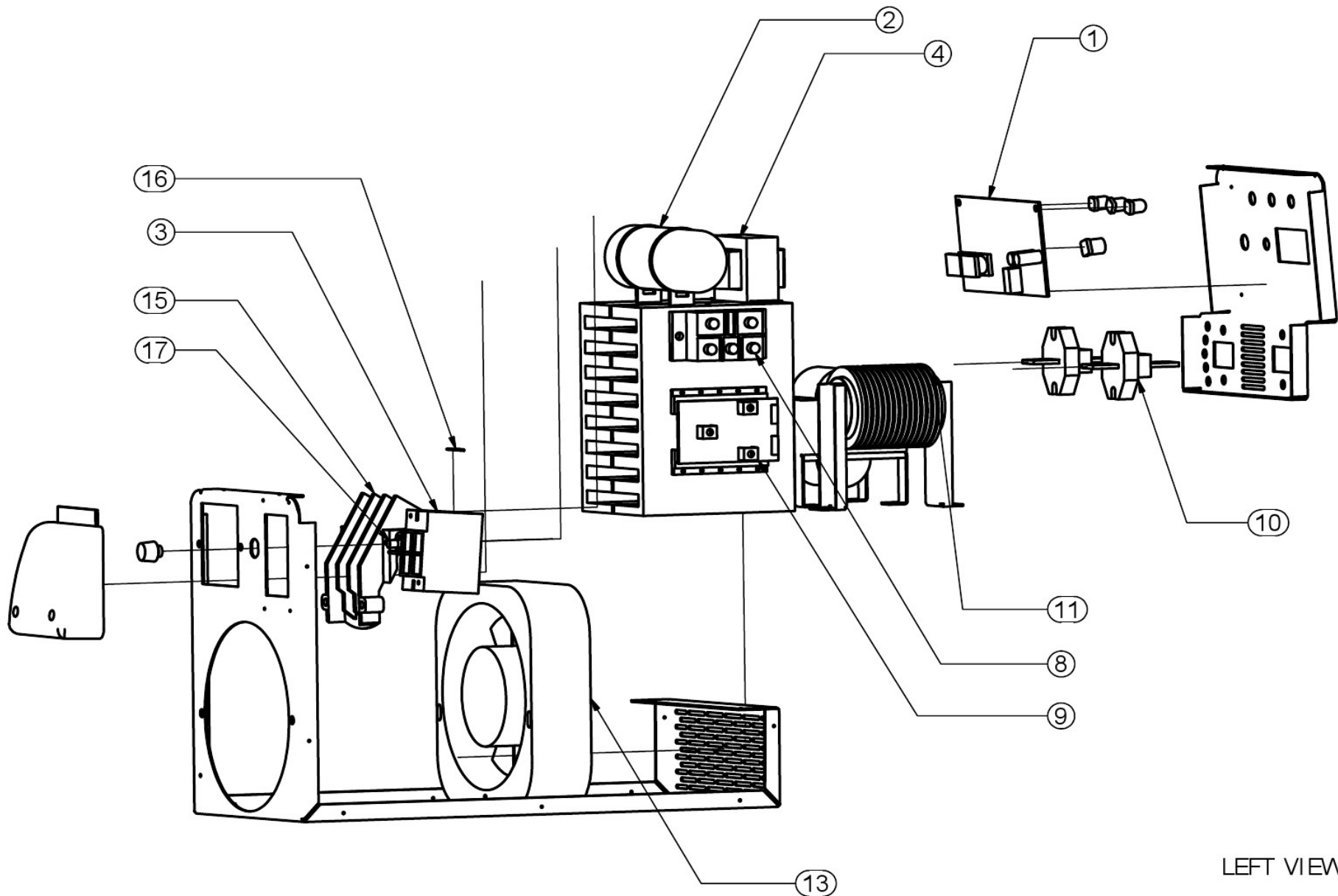


INVERTER DC ARC 250LD2



RIGHT VIEW

INVERTER DC ARC 250LD2



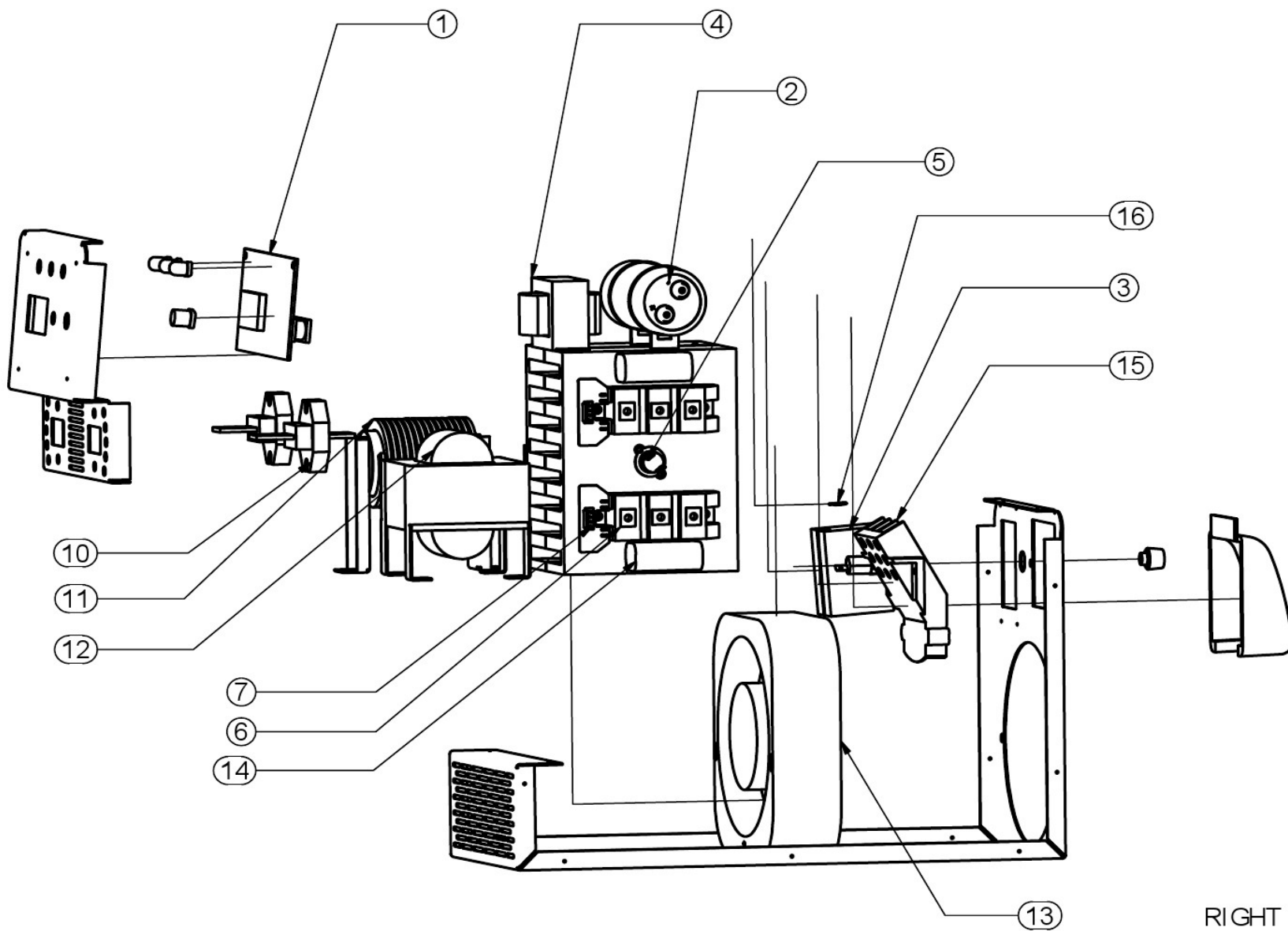
LEFT VIEW

250LD2 PARTS LIST

*Description can be changed by LOT number

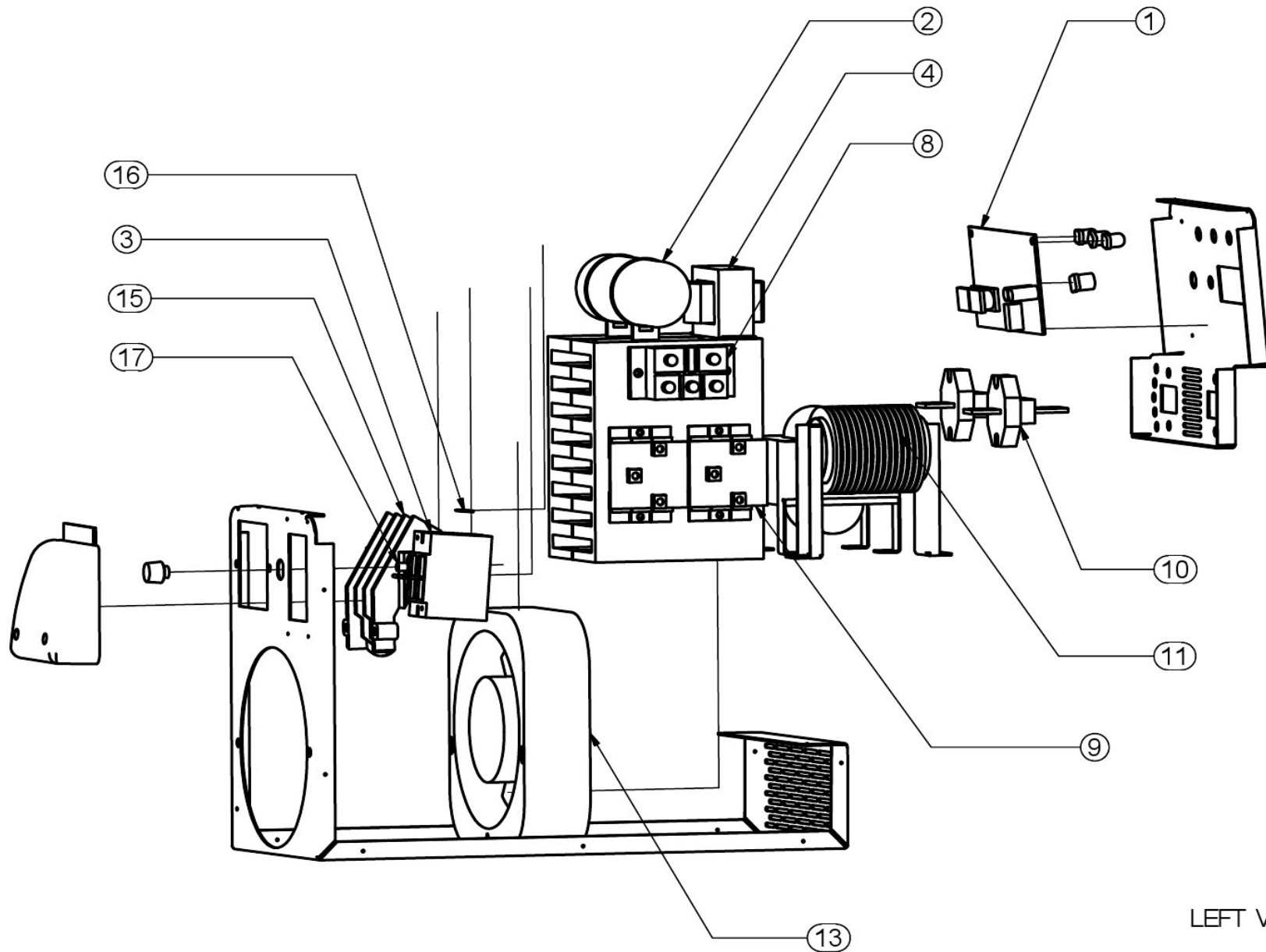
NO.	PART NAME	DESCRIPTION	QTY.
1	MainPCB	WAM-02	1
2	Condensor	2700/400V	1
3	NFB	2P-80A	1
4	Control Transformer	5725	1
5	Temp. Switch	N85	1
6	IGBT	600V,100A	2
7	IGBT Drive PCB	WGE-01	2
8	Input Bridge Diode/PCB	SDH100B-16	1
9	Output Diode PCB	WDO-10	1
10	Output Terminal	MJ-133	2
11	Choke Transformer	200LD2	1
12	Main Transformer	200LD2	1
13	FAN	150T	1
14	MF Condensor	10 μ F/800V[SMALL]	2
15	Input Terminal	6MM	1
16	TNR	14D391	1
17	FUSE	3A	1

INVERTER DC ARC 300LD2



RIGHT VIEW

INVERTER DC ARC 300LD2



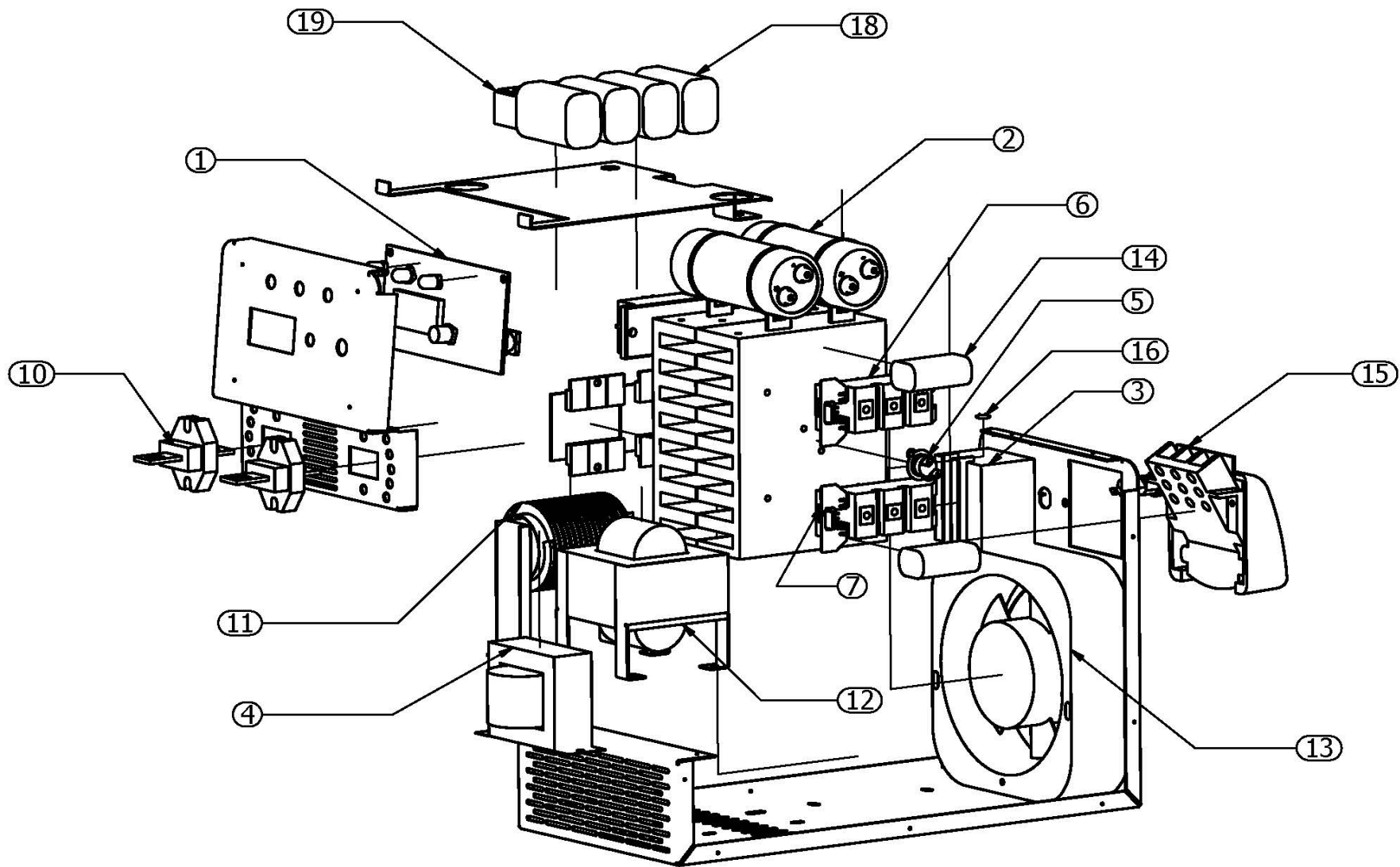
LEFT VIEW

300LD2 PARTS LIST

*Description can be changed by LOT number

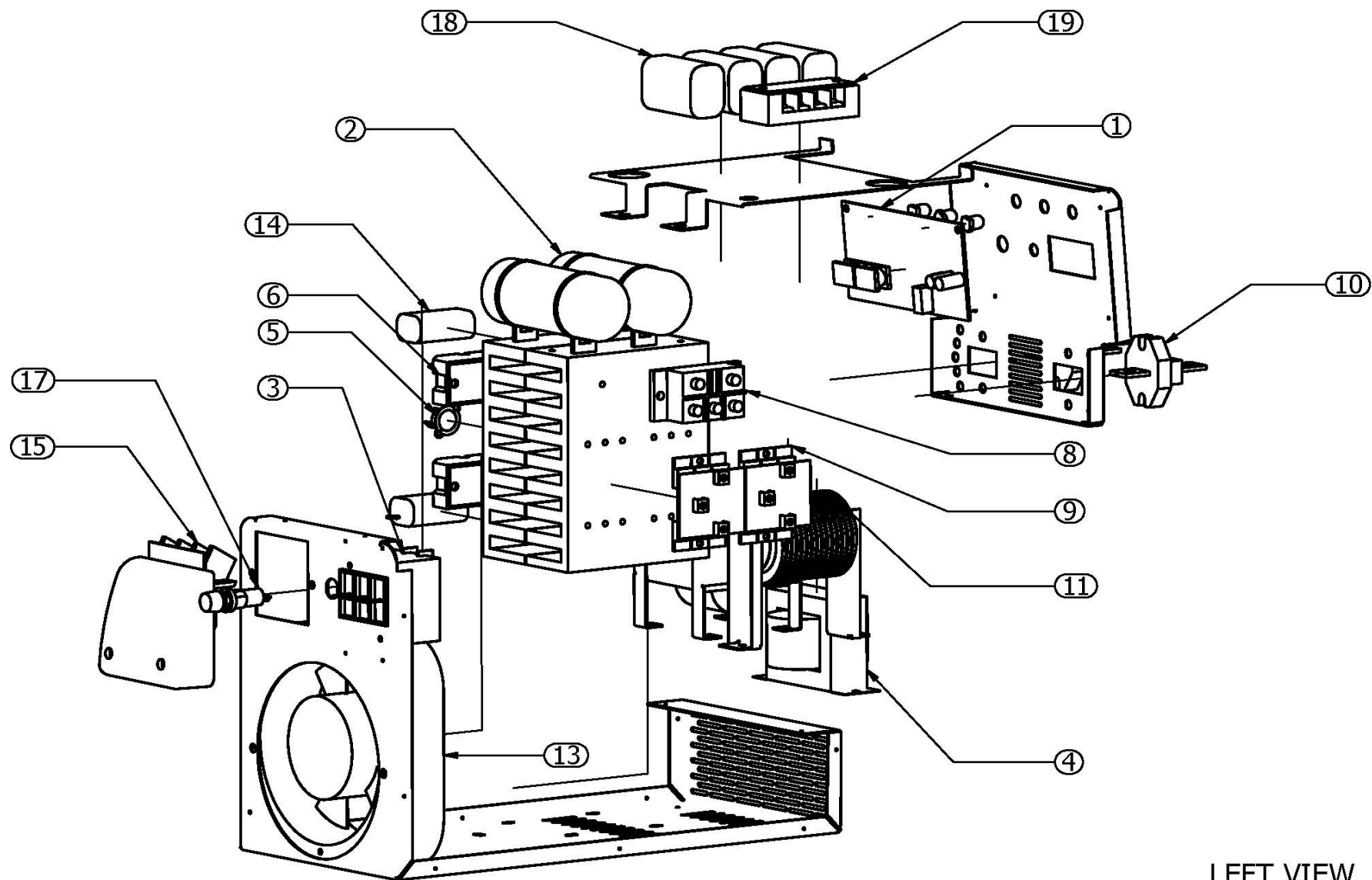
NO.	PART NAME	DESCRIPTION	QTY.
1	Main PCB	WAM-02	1
2	Condensor	3300/400V	1
3	NFB	2P-80A	1
4	Control Transformer	5725	1
5	Temp. Switch	N85	1
6	IGBT	600V,150A	2
7	IGBT Drive PCB	WGE-01	2
8	Input Bridge Diode/PCB	SDH100B-16	1
9	Output Diode PCB	WDO-06	2
10	Output Terminal	MJ-133	2
11	Choke Transformer	300LD2	1
12	Main Transformer	300LD2	1
13	FAN	150T	1
14	MF Condensor	10 μ F/800V[SMALL]	2
15	Input Terminal	6MM	1
16	TNR	14D391	1
17	FUSE	3A	1

INVERTER DC ARC 300LD2 (220/440V)



RIGHT VIEW

INVERTER DC ARC 300LD2 (220/440V)



LEFT VIEW

300LD2 (220/440V) PARTS LIST

*Description can be changed by LOT number

NO.	PART NAME	DESCRIPTION	QTY.
1	Main PCB	WAM-02	1
2	Condensor	2200/400V	2
3	NFB	3P-80A	1
4	Control Transformer	7630	1
5	Temp. Switch	N85	1
6	IGBT	LUH150G602Z	2
7	IGBT Drive PCB	WGE-01	2
8	Input Bridge Diode/PCB	DF75LA80	1
9	Output Diode PCB	WDO-06	2
10	Output Terminal	MJ-133	2
11	Choke Transformer	300LD2	1
12	Main Transformer	300LD2	1
13	FAN	YY FAN	1
14	MF Condensor	10 μ F/800V[SMALL]	2
15	Input Terminal	6MM	1
16	TNR	14D391	1
17	FUSE	3A	1
18	MF Condensor	10 μ F/1000V	4
19	Terminal	30A4P	1

Thanks for purchasing our machine

Please fill out below form for future reference. This information can be found on the Nameplate of your machine.

Product Name	INVERTER DC STICK WELDER
Model Number	
Date Manufactured	
Serial Number	
Date Purchased	
Where Purchased	
Where you use	

Whenever you request replacement parts or information on this machine, always supply the information you have recorded above. The date number is especially important when identifying the correct replacement parts.

Complete this form, please fax it to our selling agency in your country or us for warranty statement.



WORLDWEL CO., LTD.

11-101, Songlim-dong, Dong-gu, Incheon-city, Korea

TEL : +82-32-876-2114 FAX : +82-32-876-2117

E-mail : sales@worldwel.com

www.worldwel.com