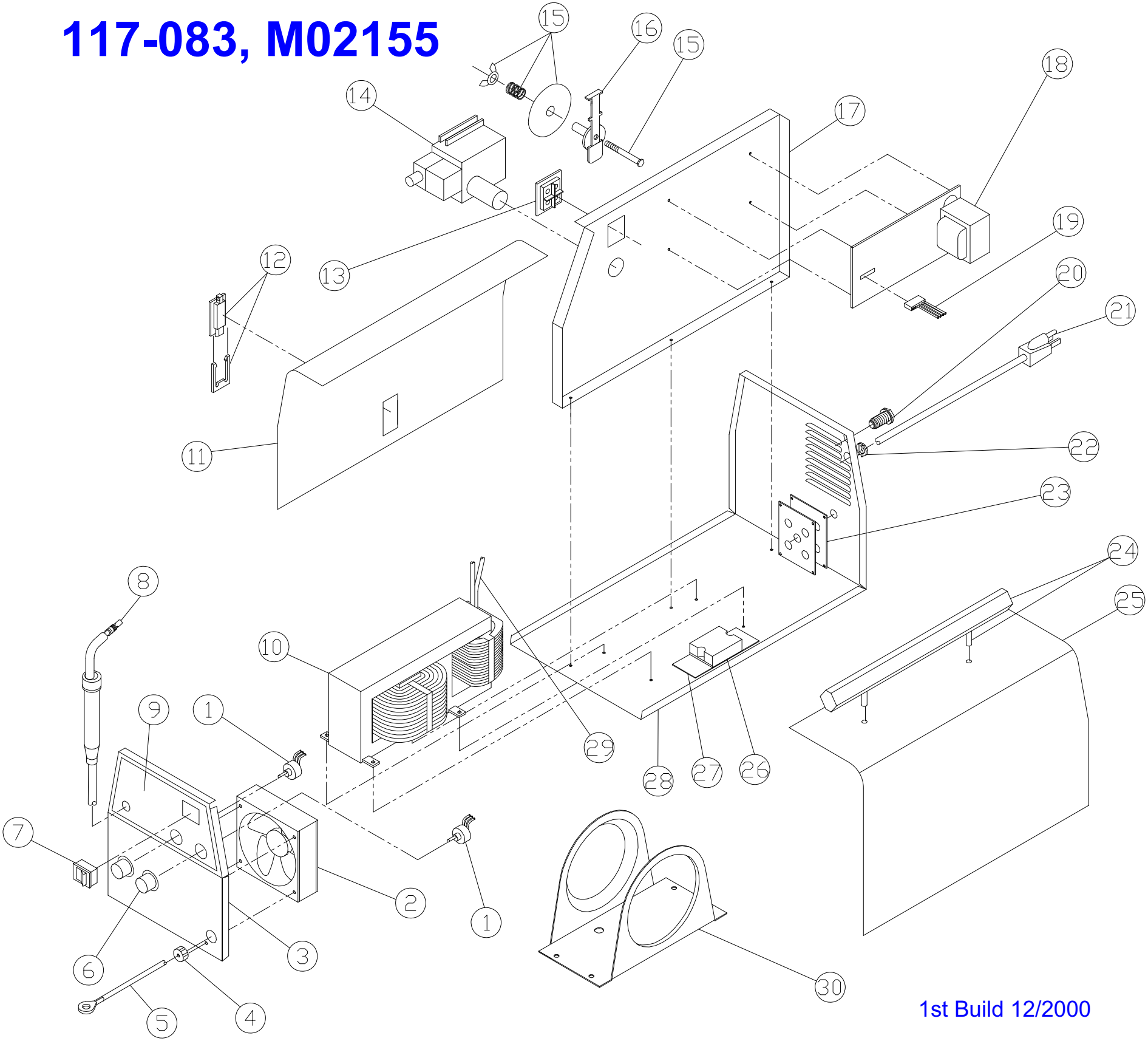
117-083, M02155



1st Build 12/2000

117-083, M02155

Item	Lincoln Stock #	Customer #	Description
1		**246-120-000**	Heat potentiometer, 5K, 1/4w
2	S18977-4	216-100-000	Fan motor
3	NLA	410-900-XXX	Front panel
4		541-057-000	Strain relief
5		**238-223-666**	Cable assy.
6	246-041-666	246-107-000	Knob
7		**246-423-000**	Power switch, DPST lighted
8	**238-592-000**	**238-592-000**	**6' mig gun**
	238-593-000		**10' Mig Gun**
9	NLA	410-869-XXX	Control panel
10	NLA	880-449-888	Transformer
11	NLA	410-865-XXX	Left side panel
12	NLA	312-295-666	Slide latch w/clip
13		**246-414-666**	Terminal block
14	880-406-001	880-406-666	Drive motor / gear box
		310-187-000	Steel drive roller, (0.024/0.030/0.035)
	880-427-666	880-427-666	Neoprene drive roller for aluminum
15	131-419-000		Tension kit less 312-110-666
16	312-076-666		Spindle
17	NLA	410-867-XXX	Center panel
18		880-451-666 / **880-456-000**	Circuit board w/heat sink
19	NLA	870-425-666	Harness

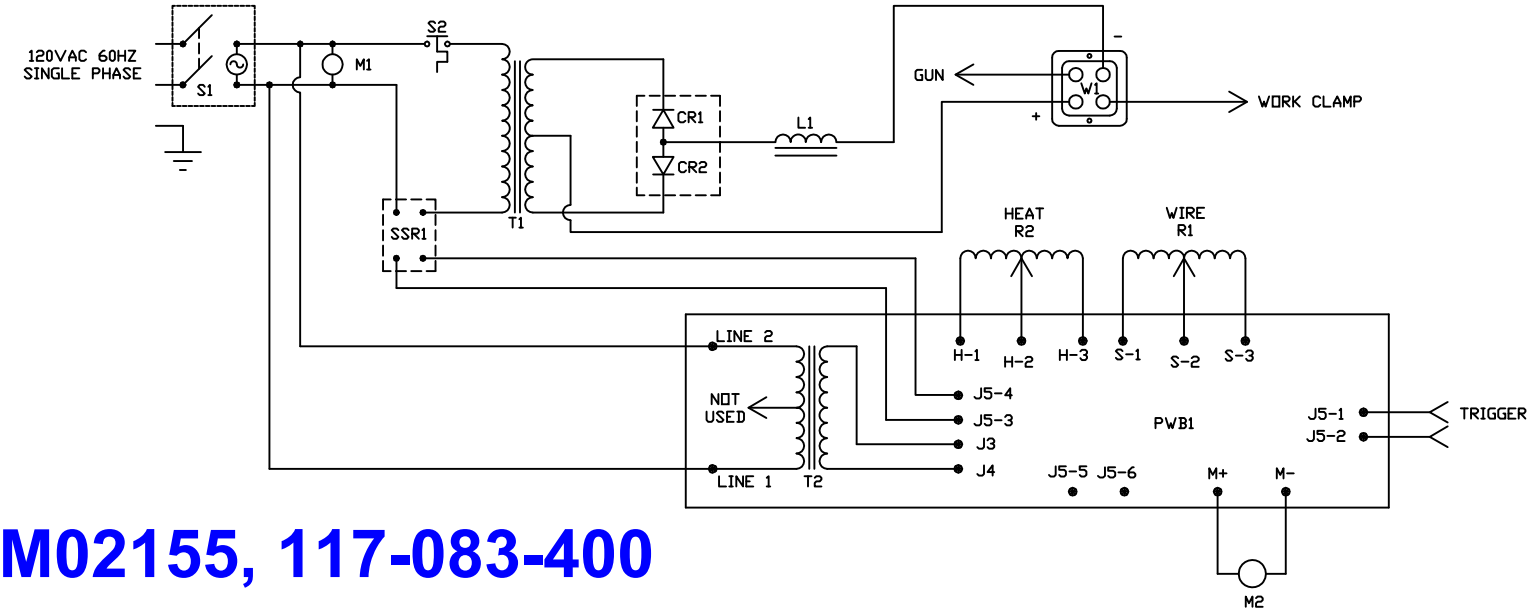
Item	Lincoln Stock #	Customer #	Description
20	253-333-000	253-333-666	Push in union fitting (5/32")
21		248-328-666	Power cord
22		239-074-666	Bushing
23	880-402-666	880-454-666	Rectifier (includes 2 plates)
24		**312-296-666**	Handle
25	NLA	410-864-XXX	Right side panel
26	216-055-666	216-055-666	Triac relay
27	NLA	412-723-000	Heatsink
28	NLA	880-431-000	Base
29		**246-428-000**, 880-426-000	Thermal protector
Not Shown			
30	334-460-001	334-460-666	Regulator
31	S26399-28	059-217-040	5/32" gas hose
32	KP11-25, KH710	43090, M15522 334-159-300, KP2039-1B1	Contact Tips .025"
33	KP11-30, KH711	43100, M15523, 334-160-300, KP2039-2B1	Contact Tips .030"
34	KP11-35, KH712	43110, M15524, 334-161-300, KP2039-3B1	Contact Tips .035"
35	KP21T-50, KH725	43480, M15578, 334-203-000	Nozzle for Steel Welding
	KP21T-62	43300, 334-210-300	Nozzle for Aluminium Welding
	KP21-62-FAS	43290, KP1956-1, M15577 334-211-300	Spot Welding Nozzle
	KP1939-1, KH726		Flux Core Nozzle
36	312-110-666	312-110-666	Wire spool adapter
37	K910-1	239-010-102	Ground clamp

9/14/2010

Model	Primary Input	Input Plug	Duty Cycle at Rated Output
117-083	120V, 15a	15A	20%

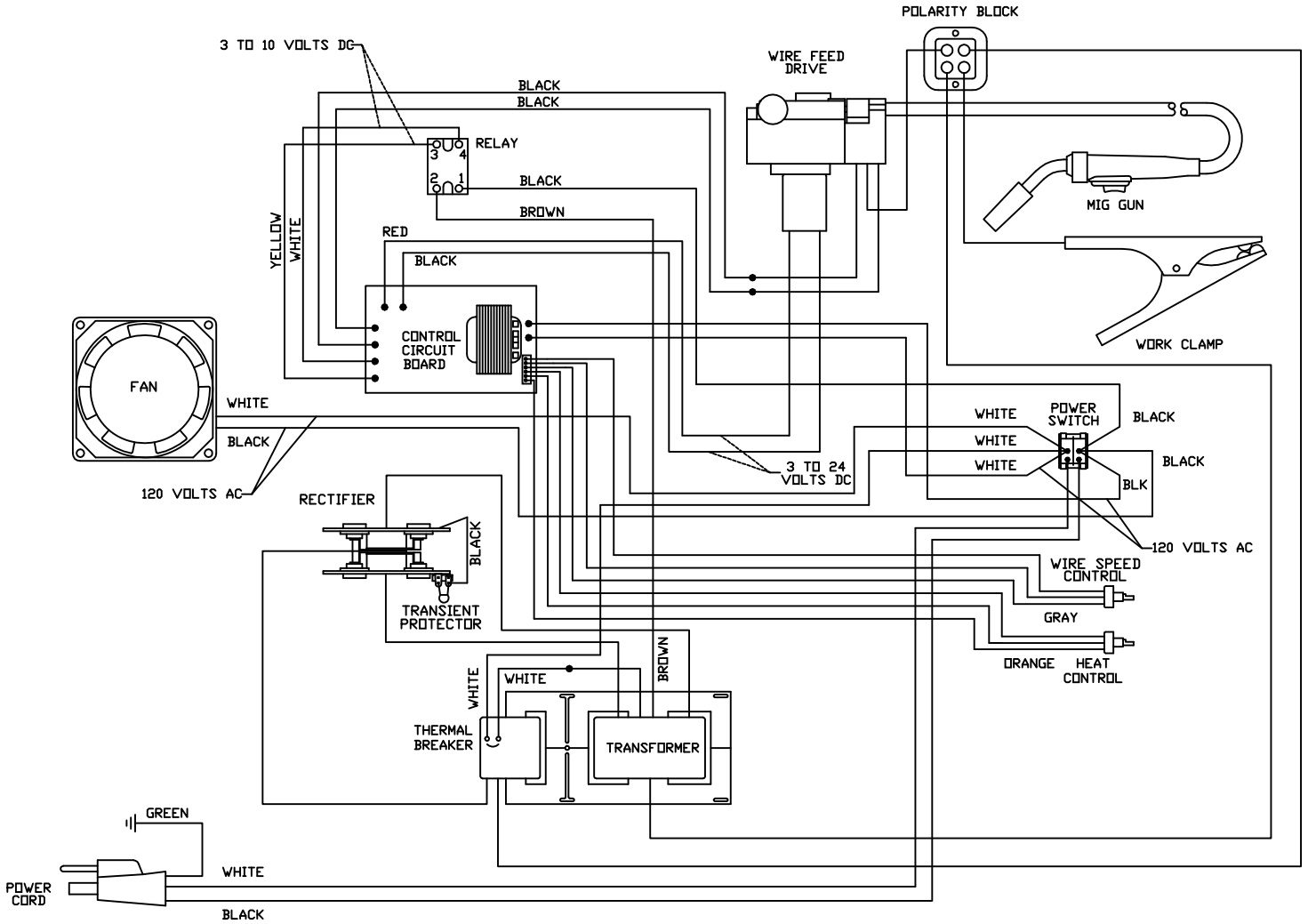
Rated Output	Voltage Settings	Agency Listing	Output
90 amps	Infinite	Cul	30-125 amps

SCHEMATIC DIAGRAM



M02155, 117-083-400

WIRING DIAGRAM



NOTES:

------: VOLTAGES ARE PRESENT ONLY WHEN TRIGGER IS PULLED.

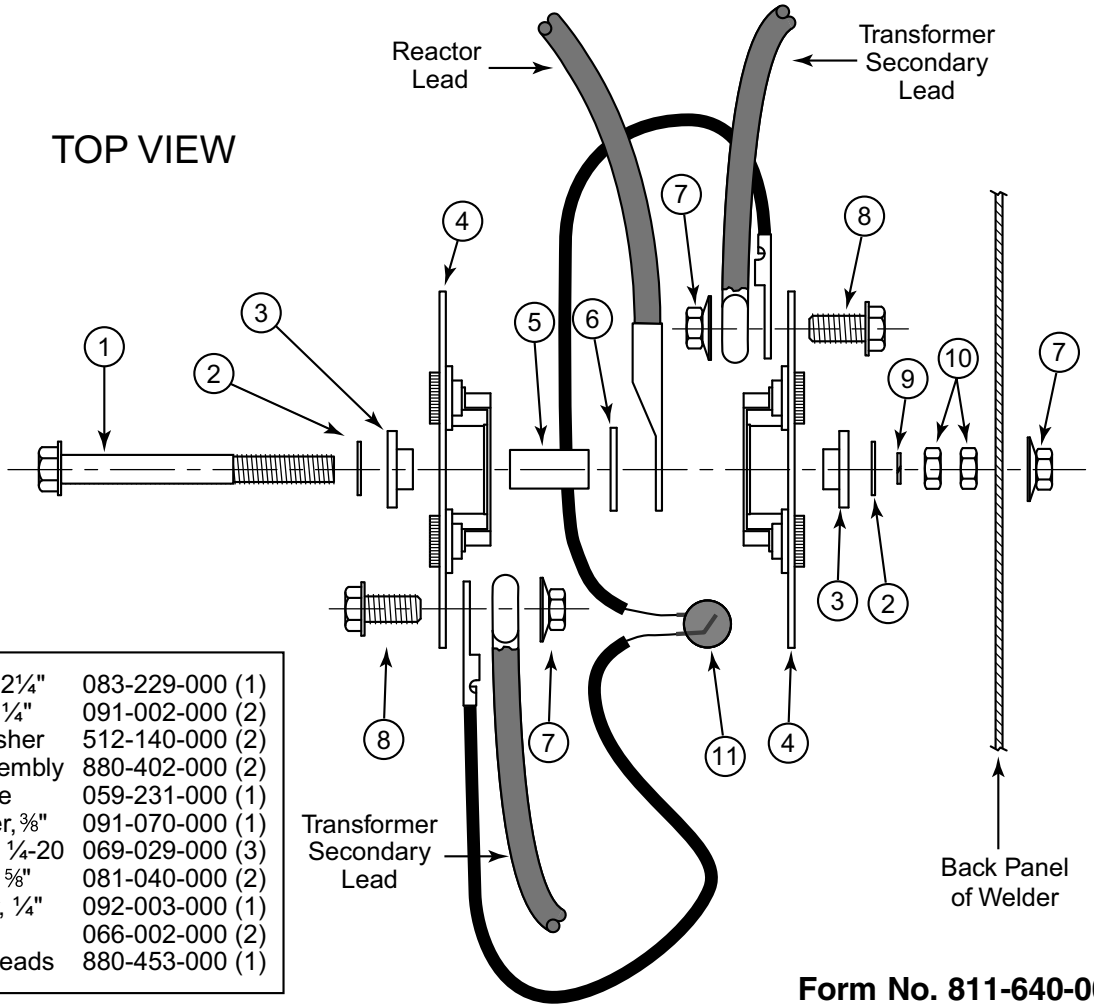
———: VOLTAGES ARE PRESENT WHEN MAIN POWER IS ON.

RECTIFIER REPLACEMENT INSTRUCTIONS

⚠ WARNING **Unplug welder before servicing.**

Your replacement rectifier kit comes unassembled. You will need to follow these instructions to assemble the rectifier and place the wire leads from the transformer in their correct position.

1. Remove cover and disassemble old rectifier and note position of the transformer leads. Discard defective parts.
2. Locate the rectifier assembly plates (4). They are identical to each other. Push the ¼-20 X 5/8" bolt (8) through one of the holes near the edge of the plate. Put the ring terminal end of one the wire leads coming off of the M.O.V. (11) onto the bolt. Place one of the transformer secondary leads onto the bolt and screw the flanged nut (7) on. Tighten nut to 55–70 inch-pounds.
3. Repeat procedure for the remaining plate using the other wire lead from the M.O.V. and the other transformer secondary lead.
4. Slide the ¼" flat washer (2) and the shoulder washer (3) onto the ¼-20 X 2¼" bolt (1). Push bolt and washer into the center hole of one of the rectifier assembly plates. Slide the insulator tube (5), brass washer (6), and reactor lead over the end of the bolt. **NOTE: The brass washer should be placed against the *crimped* side of the reactor lead. See illustration below.** Now push the other rectifier assembly plate over the bolt so that the transformer leads are opposite from each other and the heads of the other two bolts are facing outward. Screw on one of the ¼-20 nuts (10) making sure that the two plates are parallel. Tighten to 55–70 inch-pounds. Secure the other ¼-20 nut (10).
5. Place the completed assembly so the remaining threads of the bolt go through the hole in the back panel of your welder. Position assembly so that the plates do not touch the back panel or any other components inside the welder. Tighten remaining flanged nut (7) and replace cover on unit.



1.	Bolt, ¼-20 X 2¼"	083-229-000 (1)
2.	Flat Washer, ¼"	091-002-000 (2)
3.	Shoulder washer	512-140-000 (2)
4.	Rectifier Assembly	880-402-000 (2)
5.	Insulator Tube	059-231-000 (1)
6.	Brass Washer, ⅜"	091-070-000 (1)
7.	Flanged Nut, ¼-20	069-029-000 (3)
8.	Bolt, ¼-20 X ⅝"	081-040-000 (2)
9.	Lock Washer, ¼"	092-003-000 (1)
10.	Nut, ¼-20	066-002-000 (2)
11.	M.O.V. with leads	880-453-000 (1)

Form No. 811-640-000