

117-053, 2140, 20549

FORM NO. 812-509-000
REV. B

117-053 (2140, 20549), 105 Amp Mig

Item	Lincoln Stock #	Customer #	Description
1	Repair	880-188-888	Main weld transformer
2	NLA	880-215-888	Reactor Coil w/ thermostat
3		880-225-666	Wire harness
4	880-217-666	880-217-666	Circuit board
5	216-053-666	216-053-666	Thermostat
6	S18414-1	239-159-666	Power receptacle
7	216-087-666	216-087-666	Fan motor
8	NLA	412-375-000	Fan motor bracket
9		316-009-000	Fan blade
10	131-419-000	131-213-000, 131-350-001	Tension hardware
11	S18475	248-226-000, 248-227-100 (4040)	Power cord
12	312-076-666	312-076-666	Spindle
13	312-110-666	312-077-666	Spindle adapter
14	246-086-666	246-212-666	Gas solenoid
15	310-122-500	4323	Drive roller, 0.024 / 0.030 / 0.035
	860-616-002	4324	Drive roller for aluminum
16		412-280-666	Copper ring
17	Included with #19	880-111-666, 312-107-000	Tension arm only
18	Included with #19	239-123-666, 239-208-000	Inlet guide tube
19	880-130-666	880-130-666	Drive base with arm
20	S27985-4 with 880-130 base hole enlarged & terminals changed	216-089-666	Drive motor
21	NLA	880-012-010	Unit handle assy.
22	NLA	412-278-010	Hood hinge
23	NLA	410-586-010	Right side panel

Item	Lincoln Stock #	Customer #	Description
24		245-108-666	Heat potentiometer
25	880-219-666	880-219-666	Wire speed pcb
26a		246-116-666	Fuse holder cap
26b		245-060-666	Fuse only, BAN30 or BLN30
27	246-258-666	246-258-666	
28		743-270-666	Mig nose w/label
29	246-259-666	246-259-666	90 / 110 Amp Rocker Switch
30	246-041-666	246-107-000	Knob
31	S11609-18	238-216-666	Ground cable only, 9' w / lugs
	M12033	239-010-102	Ground clamp only(not shown)
32		860-523-666	Bleeder resistor
33	NLA	410-639-010	Base
34	S13490-109	213-035-666	Capacitor

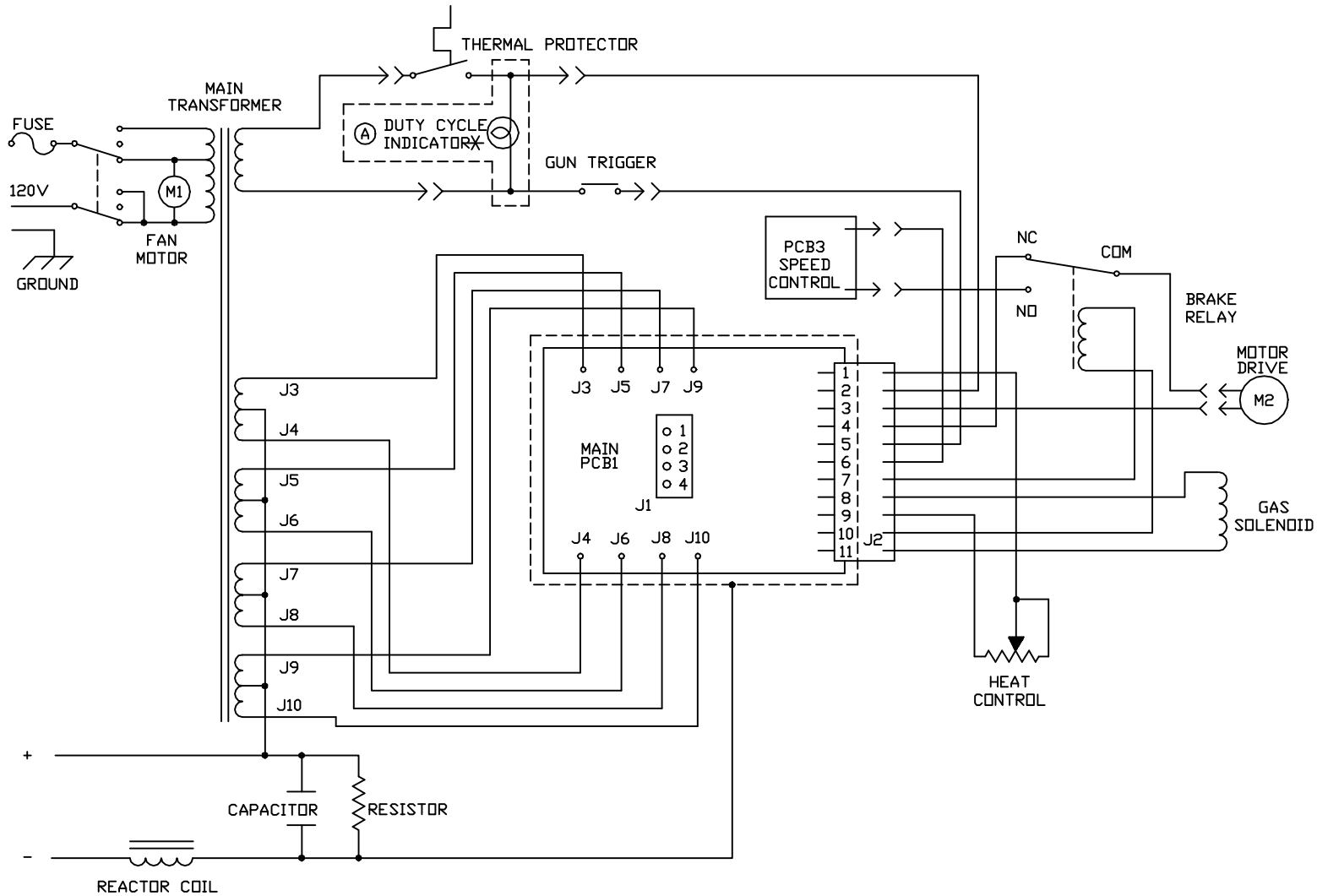
Not Shown

35	238-155-000	4320, 238-155-100	10' Mig gun
36	KP45-40-15	KP1937-1, 4331	Steel liner, 15'
37	KP1959-1	4325	Teflon liner
38	KP21T-62	43300, 334-210-300, KP1942-3	Aluminum welding nozzle
	KP21-62-FAS	43290, 334-211-300, KP1956-1, M15577	Spot welding nozzle
39	KP11-25, KH710	43090, 334-159-300, KP2039-1B1, M15522	0.025 Contact Tips
	KP11-30, KH711	43100, 334-160-300, KP2039-2B1, M15523	0.030 Contact Tips
	KP11-35, KH712	43110, 334-161-300, KP2039-3B1, M15524	0.035 Contact Tips
38	334-303-001	334-286-666	Gas regulator
39	059-245-666		Gas hose

2/16/2019

Model	Primary Input	Input Plug	Duty Cycle at Rated Output
117-053	120V, 20 amp	15A	20%

Rated Output	Voltage Settings	Agency Listing	Max Output
105 amps	Infinite	CSA	130 amps



610-120-000

Models 117-052, 117-053, 117-058*, 117-061, 117-064

(A) * DUTY CYCLE INDICATOR LIGHT IS ONLY ON INDICATED MODELS.

117-053, 2140, 20549

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		(A) EN 11094	8-24-90	KIM
SYM	REVISION	DATE	BY	
DO NOT SCALE UNLESS SPECIFIED DIMENSIONS ARE IN INCHES		CENTURY MFG CO		9231 PENN AVE SD MPLS, MN 55431
TOLERANCES UNLESS SPECIFIED		DWN BY LRB	DATE 4-3-90	MAT'L
DECIMALS: ±0.015		DFT CHK		
FRACTIONS: ±1/64		ENG CHK		
ANGLES: ±0.5°		ENG APPV JCW	5-7-90	
PREVIOUSLY RELEASED AS	APPV	MAT'L NO		
P. - REV. -	SCALE NONE	RELEASE NO 10848	DATE ISSUED	DEPT CODE 74
TITLE SCHEMATIC		DWG NO 610-120-000		

CONTROL SET-UP REFERENCE GUIDE

The settings given in this guide are approximate only. Different conditions may cause you to adjust higher or lower.

Steel C-25 or CO ²	Wire Diameter Solid Wire	Heat Setting	Wire Speed
22 ga and thinner (.031 in. and less) (.794mm and less)	.024in.(.6mm.)	5	5-6
22-18 ga (.031-.050in.) (.794-1.270mm.)	.024in.(.6mm) .030in.(.8mm.)	6 5	6 5
18-14 ga (.050-.078in.) (1.270-1.981mm.)	.024in.(.6mm.) .030in.(.8mm) .035in.(.9mm.)	7 7 5	6-7 6-7 5
14 ga- $\frac{1}{8}$ in. (.078-.125in.) (1.981-3.175mm.)	.024in.(.6mm.) .030in.(.8mm) .035in.(.9mm.)	8-9 8 6-7	7 6 5-6
$\frac{1}{8}$ - $\frac{3}{16}$ in. (.125-.187in.) (3.175-4.75mm.)	.030in.(.8mm) .035in.(.9mm.)	9 8	6-7 6
$\frac{3}{16}$ in. and thicker (.187in. and more) (4.75mm. and more)	.035in.(.9mm.)	9	6

Steel No Gas Needed	Wire Diameter Flux Cored Wire	Heat Setting	Wire Speed
22-16 ga (.037-.062in.) (.940-1.59mm.)	.030in.(.8mm) .035in.(.9mm.)	5 5	5 5
16ga- $\frac{1}{2}$ in. (.062-.093in.) (1.59-2.36mm.)	.030in.(.8mm) .035in.(.9mm.) .045in.(1.2mm.)	7 7 7	5 5 5
$\frac{3}{32}$ and thicker (.093in. and more) (2.36mm. and more)	.035in.(.9mm) .045in.(1.2mm.)	9 9	6 6

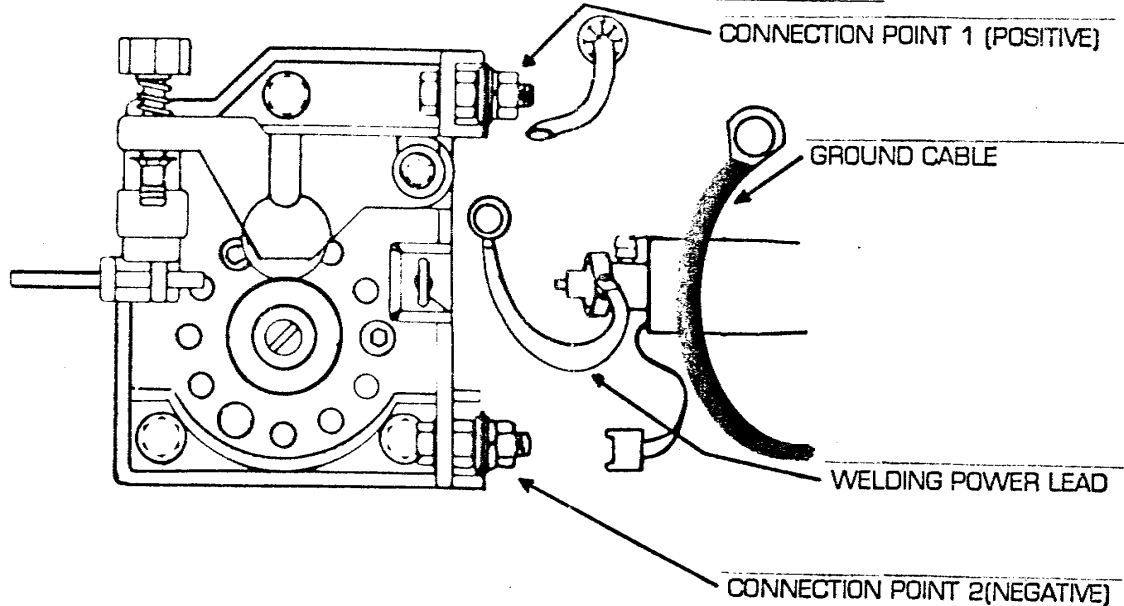
Aluminum Argon Gas	Wire Diameter	Heat Setting	Wire Speed
$\frac{1}{16}$ - $\frac{3}{32}$ in. (.0625-.093in.) (1.58-2.36mm.)	.024in.(.6mm.) .030in.(.8mm) .035in.(.9mm.)	6 6 6	6 6-7 7
$\frac{3}{32}$ in. and thicker (.093in. and more) (2.36mm. and more)	.030in.(.8mm) .035in.(.9mm.)	9 9	8 8

FOR DC STRAIGHT POLARITY
(FLUX CORED WIRE)

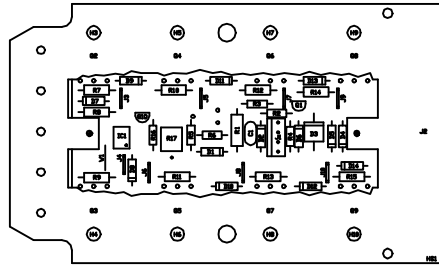
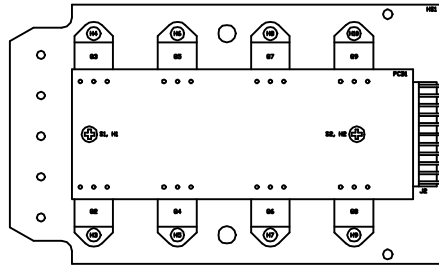
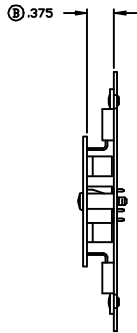
CONNECT GROUND CABLE TO POINT 1 (POSITIVE)
CONNECT WELDING POWER LEAD TO POINT 2 (NEGATIVE)

FOR DC REVERSE POLARITY
(MOST SOLID WIRES)

CONNECT GROUND CABLE TO POINT 2 (NEGATIVE)
CONNECT WELDING POWER LEAD TO POINT 1 (POSITIVE)



117-052, 117-053



NOTES:

1. SOLDERING AND GENERAL WORKMANSHIP TO COMPLY WITH IPC-CM-770B.
2. TRIM EXCESS COMPONENT LEAD LENGTH TO .125" MAX.
3. CONFORMAL COAT PER QC PROCEDURE #QCP 98050. DO NOT CONFORMAL COAT POTENTIOMETER (#R17).
MATERIAL: DDW CORNING 1-2577 .002 - .006 THICK
HUMISEAL 1A27 .002 - .004 THICK
4. KNOB OF POTENTIOMETER (#R17) TO BE SEALED TO PREVENT ROTATION AFTER CALIBRATION OF CIRCUIT BOARD.
5. ENTIRE CONTACT SURFACE OF SCR'S (Q2 THRU Q9) TO HAVE THERMAL GREASE, GE #GG4L OR EQUAL, APPLIED PRIOR TO RIVETING TO HEATSINK.
- ⑥ 6.
- ⑦ 7. BOARD TO BE SHIPPED IN BULK PACKING TO PROTECT FROM DAMAGE.

