

FORNEY ARC WELDER CAPACITOR OR CONDENSER

The capacitor on the Forney Arc Welder is incorporated into the unit so that it increases the power factor of the welder in order to meet R. E. A., C. S. A., and N. E. M. A. specification. All AC arc welders, regardless of make, must have such a capacitor to pass these associations specifications.

Also the capacitor serves to stabilize the welding arc creating a smoother welding arc giving a better weld than would be possible without the capacitor.

Sometimes, even though the capacitors are checked by their manufacturer and again by us when the welder is made, they may become defective at any time. Defective capacitors may be caused by many things, the most unusual but prevalent is caused by a high voltage surge on the power line. Lightning, faulty transformer on the power line or other such circumstances may also cause a capacitor failure.

If you suspect a defective capacitor (one of the first signs is oil dripping from the machine and as the capacitor is oil filled, oil dripping would indicate a burst capacitor) then proceed as follows to check out the capacitor.

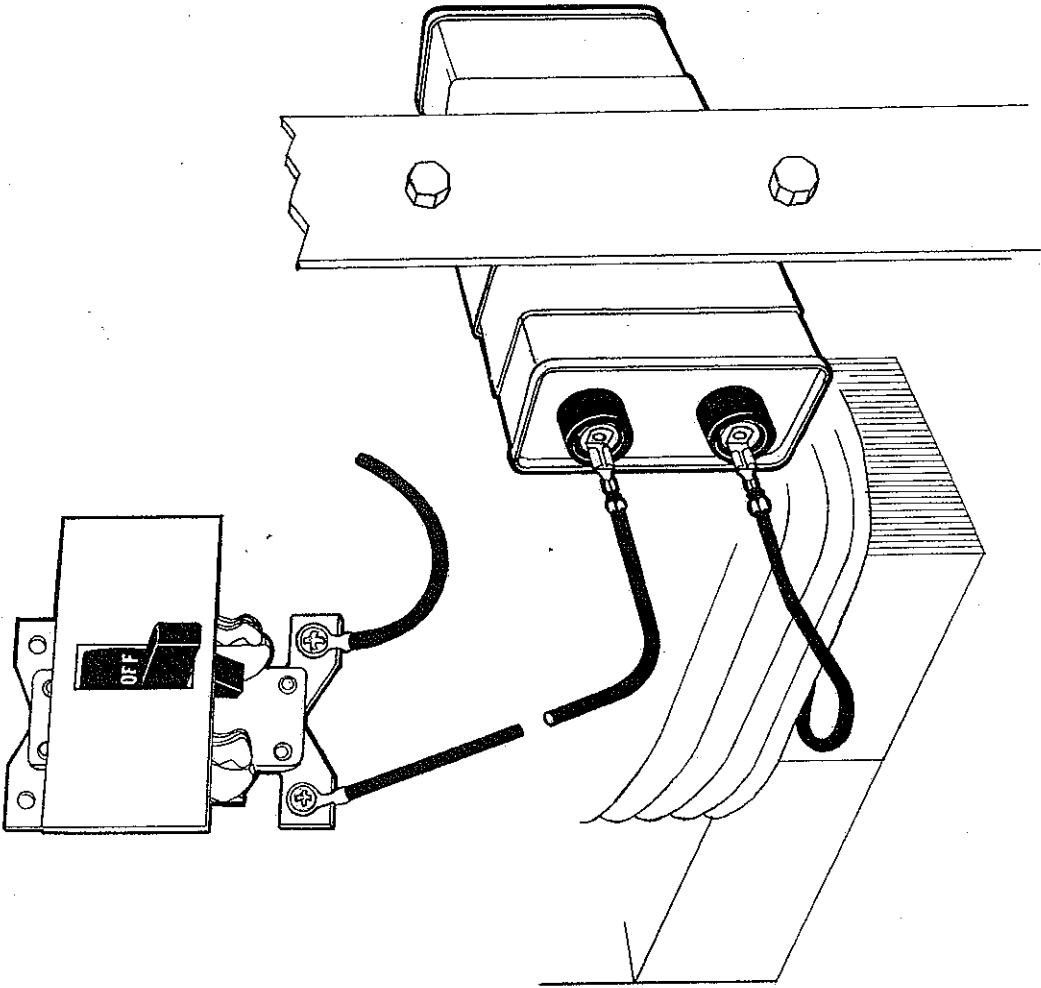
1. Shut welder switch off and pull the lead-in-cable plug out of the wall receptacle.
2. Remove the top from the welder and locate the capacitor below and to the rear from the switch. The capacitor may be rectangular (as shown in the sketch) or oval. They are interchangeable on the same model welder. A 180 amp welder uses 370V or 330V capacitor but a 250 amp welder uses only a 370V capacitor.
3. If oil is leaking from the capacitor (as explained above) it is defective and should be replaced.
4. Touch a screwdriver or other metal between the two terminals of the capacitor to remove any charge which may be present.
5. Remove the top wire lug from the top terminal and bend it or tape it so it touches no metal parts.
6. Plug welder in and weld some. If the welding characteristics are the same as before the wire was removed, the capacitor is probably open or shorted and should be replaced.
7. If the capacitor is defective it may be removed by sliding off the other wire lug and removing the capacitor by loosening the bolt holding the strap.
8. Tape the two wires separately and the welder may then be used until the replacement capacitor is received and installed.
9. If, after the capacitor is taken out, the welder does not operate as well as it did before, the condenser is O. K., and should be put back in place.
10. When installing a replacement capacitor (oval and rectangular ones are interchangeable) either wire may be connected to either terminal as there is no polarity to the capacitor.

Check with your local Forney Representative if you desire for him to check out the capacitor or other welder difficulties.

While the top is removed it is an opportune time to check all wire connections inside the welder. Also any accumulated dust or dirt may be blown out of the welder.

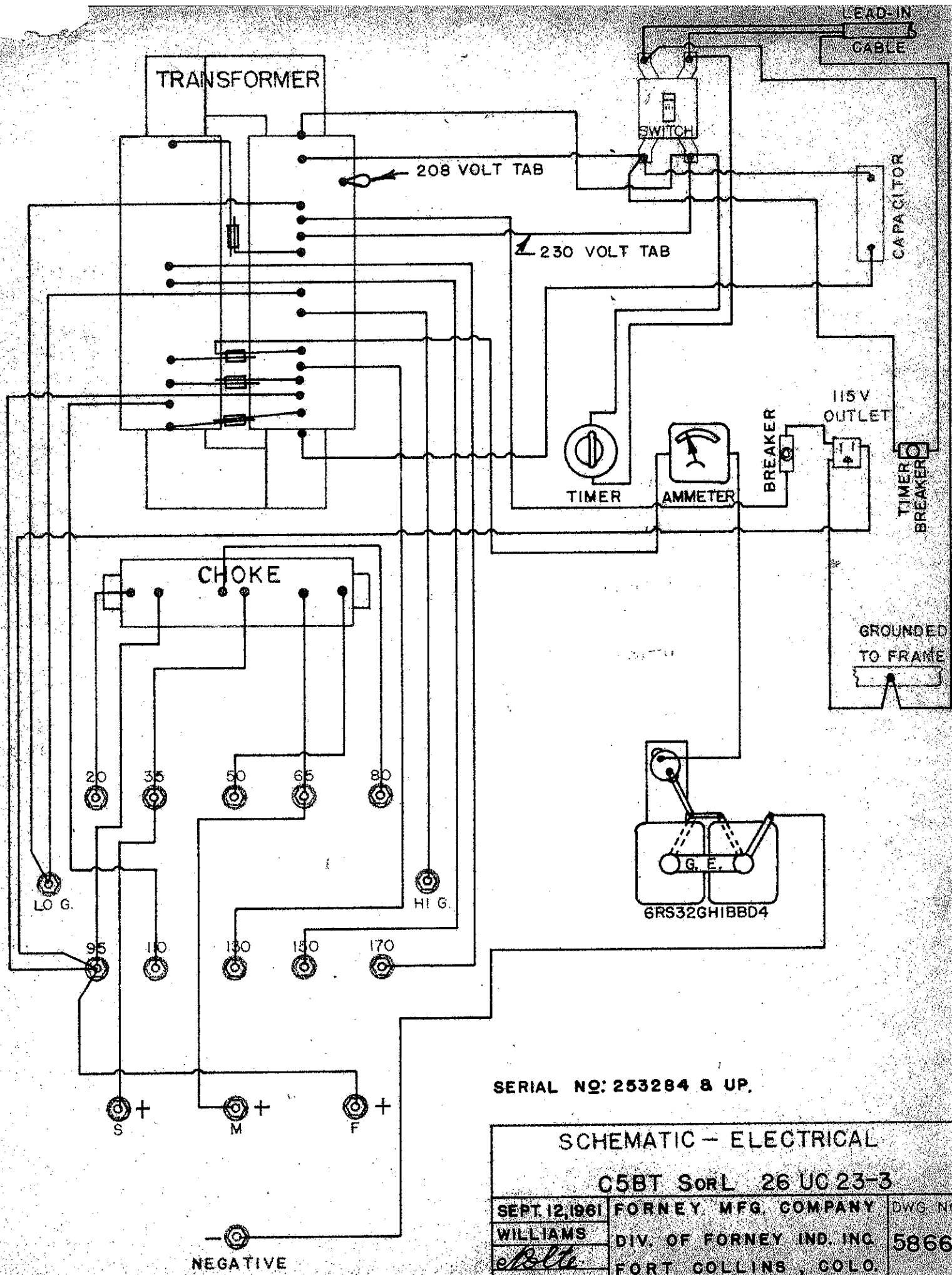
When replacing a capacitor be sure that the spade lugs are securely in place on the terminals.

If the welder is under the two-year guarantee and a replacement capacitor is desired, contact your local Forney Representative or send the defective capacitor prepaid to the Service Department, Forney Manufacturing Co., Fort Collins, Colorado. Be sure to give the Model and Serial number of the welder. New capacitors for older welders may be ordered also thru the Forney Representative or the Factory Parts Department.



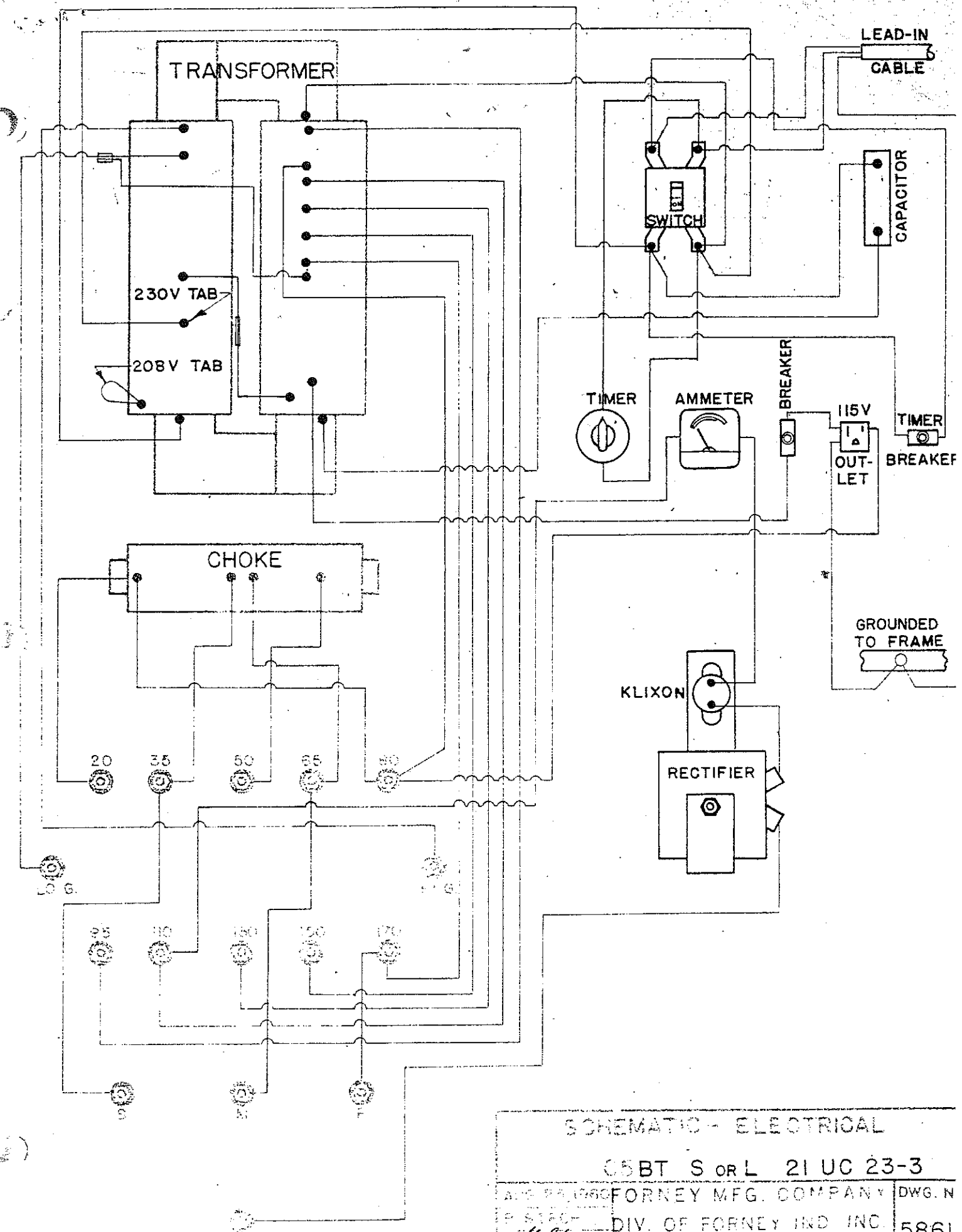
Forney Manufacturing Co. 2010 370V. 175

FORNEY MANUFACTURING CO.
 Division of Forney Industries, Inc.
FORT COLLINS, COLORADO

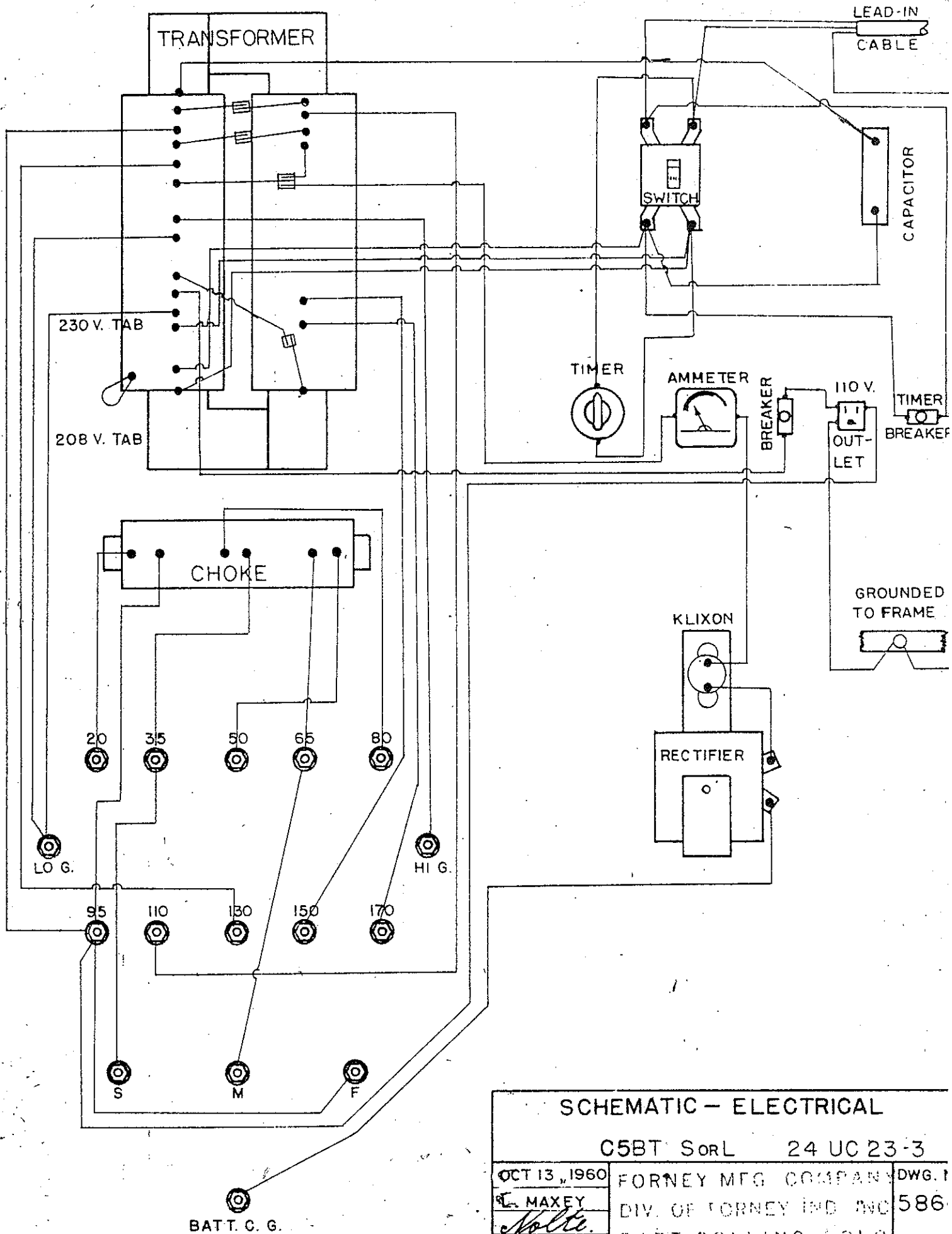


SERIAL NO: 253284 & UP.

SCHEMATIC - ELECTRICAL		
C5BT SoRL 26 UC 23-3		
SEPT. 12, 1961	FORNEY MFG. COMPANY	DWG. NO.
WILLIAMS	DIV. OF FORNEY IND. INC.	5866
<i>Williams</i>	FORT COLLINS, COLO.	



SCHEMATIC - ELECTRICAL
 C5BT S OR L 21 UC 23-3
 MADE BY FORNEY MFG. COMPANY DWG. N
 DIV. OF FORNEY IND. INC. 5861
 FORT COLLINS, COLO.



SCHEMATIC - ELECTRICAL		
C5BT SoRL 24 UC 23-3		
OCT 13, 1960	FORNEY MFG COMPANY	DWG. 1
E. MAXEY <i>Maxey</i>	DIV. OF FORNEY IND. INC.	586
FORT COLLINS, COLO		